THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

Perfect Agriculture is the true foundation of all trade and industry.—LIEBIG.

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BY JOSIAH TATUM,

EDITOR AND PROPRIETOR,

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Soiling, or House Feeding.

THE practice of soiling stock prevails to some, but not within my observation, to a great extent, in England. The soiling of stock, implies the keeping of them in stables or yards all the season, and bringing to them green feed, when it is to be obtained, cut fresh from the fields. I have not been able to get that exact information on the subject which I should have desired; and perhaps it would be vain to look for it.

Work horses are almost universally soiled in England upon clover, rye grass, rye, vetches or tares, or rye and vetches sown together. These are sown expressly for this purpose. The horses are frequently kept upon them without any additional feed; but when on the road, or when the farm work is severe, they require grain of some sort in addition.

Sheep, as I have before said, which are in a course of preparation for the market, and sometimes store sheep, especially those which have lambs by their side, that are designed for market, are folded, and the tares cut green and conveyed to them, which may be considered as soiling. A large stock on Lord Hatherton's admirably managed farm at Teddesley Park, in Staffordshire, are soiled; and their good condition evinced the excellent care which was taken of them. In many cases, in small holdings, I have found the system pursued with great success. On Lord Gosford's estates in Ireland, under the judicious and excellent care of Mr. Blacker, who has the superintendence, as he informed me, of several hundreds of tenants—such are the subdivisions of estates in that country,—I found that among many of these small tenants he had introduced the practice of soiling their cows. Several, whom I visited, were keeping in good health, and with great advantage, three or four cows, where formerly they kept but one, and that one in a half-starved condition. It is said that in Ireland a cow is sometimes recommended for her capacity of getting her own living by leaping hedge and ditch, and foraging any where at her pleasure. Under a system of soiling, that branch of her education might well be dispensed with, much to the advantage of the peace of the neighbourhood.*

* It is not so far as Ireland that we need go to find cows notorious for these qualifications. Within less than a hundred miles of where we write, we have

That a great saving of food is effected by soiling, there can be no doubt; no one rates it at less than two to one; many say that three animals, some assert with confidence that four animals, can be well kept upon the produce of land, if soiled, where not more than one could be kept if depastured. The difference, undoubtedly, in this respect, is very great in favour of soiling; but its expediency upon the whole, in any given case, will be affected by a variety of local circumstances.

The soiling of work horses on a farm is always to be advised. They require the most particular superintendence; but this can be given to them only when they are near at hand. They should be protected against those extreme changes of temperature from which they are likely to suffer if turned into a pasture at night after a hard day's work. They require to have their food prepared for and brought to them; otherwise much of the time which should be given to sleep and repose, is necessarily devoted to obtaining their food; and a horse turned empty at night into a pasture, will be likely to pass a great part of that night in filling his stomach. The same remark applies also to working oxen. It is highly creditable to the English farmers that their work horses are attended to with the most particular and faithful care, as to cleaning, littering, feeding, working, and watering. I have referred already to the practice of one distinguished farmer, who never allowed his horses to be trimmed, or curried, or housed, against their inclination. He was of opinion, that nature, in this respect, was the best guide; and that she gave the animals their thick and matted coat, in winter, when they required it, and it was therefore wrong to deprive them of it; and in the spring she took equal care in divesting them of the covering, which then became oppressive and superfluous. There may be some reason in this; but whenever I see either horses or men in this shaggy and wild-bear condition, I cannot help thinking that nature may be somewhat improved upon. It cannot be said of this farmer, however, that he did not give his horses the opportunity of sheltering themselves if so they chose; for he had warm sheds and open stalls, most amply littered, to which they might have recourse at pleasure. This latter circumstance, of leaving them loose, was a feature in his management much to be commended; for it seems a great cruelty, though not an infrequent practice, to tie a hard-working horse in a close box or stall, with a short halter, where he cannot stretch himself, nor lie down but in a constrained position.

Nothing, indeed, is more remarkable throughout England, as far as my observation has extended, than the care and kindness bestowed upon the horses; excepting always the omnibus and cab horses in London,* who seem, like galley-slaves, to be sentenced to hard labour as a punishment, and the hunting horses, who, especially in what are called *steeple chases*, which are in fact only trials of speed under the most unfavourable circumstances, are subjected to a severity of usage absolutely barbarous. I had the pleasure of enjoying the hospitality of a family of high rank, at whose residence forty or fifty carriage and hunting horses were kept, and where it was the custom for the principal members of the family, and their guests, to visit, by a covered passage way, the stables late in the evening, to see that everything was in order; that the grooms and their respective charges were in their places, and in proper condition; and that the noble animals, who contributed so essentially to their pleasure and comfort, were duly cared for. The establishment was a model of neatness and good management. I have had the pleasure to find many a farm stable, where the comfort and health of its occupants were provided for with a carefulness equally exemplary. I confess I never witnessed such kind, and only proper care bestowed upon these noble animals without a strong desire that some other animals employed in the labour of the farm, certainly not less noble, and whose toil is equally severe, were the objects of a similar care and kindness.

With respect to the soiling of sheep, it could rarely be practised on any extensive plan; but the folding of sheep for fattening, and with a view to enrich the land in the fields, where the produce grows, which may

known many, which turned into the highway by their owners, have become adepts in *letting down bars—casting off riders*, and *leaping the fence*, in search of what, no doubt, it seemed obvious to them, they were sent forth to seek, and which, as their owners knew, they could certainly not obtain on the bare road side.—Ed.

* A similar observation applies to our cab and omnibus horses in this city. Many of them look well, and give a good report of their owners and drivers, while the muscular powers of others are obviously too severely taxed. This service is at best, very severe upon horses, and humanity as well as interest should prompt the bestowal of every care and attention in the case. These carriages are—we suppose necessarily—made very heavy, and it should be remembered, that with a load of twelve to five and twenty grown persons, they require in their rapid motion, the expenditure of great force.—Ed.

be considered as one form of soiling, is universally practised. Experiments have been made on the feeding of sheep entirely within a yard; and the result, with respect to an eminent farmer in Yorkshire, whose establishment I had the pleasure of visiting, seemed to show that much was gained by this process, inasmuch as the animals consumed a much less quantity of food, in the proportion of 30 to 50, than animals which had a free range; but latter experiments, by other individuals, do not confirm these results. Mr. Pusey, for example, states, that he "kept ten Down lambs in a shed, and ten out of doors, weighing each lot regularly; but found the gain of weight rather on the side of the lambs fed out of doors." It is extremely difficult to say why one experiment succeeds, and another of the same kind fails or gives an entirely different result; but this is a frequent occurrence, and requires us to draw conclusions from single or from few facts with extreme caution. We can presume to be confident only when these facts are multiplied, and often repeated under the same circumstances, and always with the same results.

With respect to the soiling of cattle, it is the case with some farmers that their calves are never turned into the field until they are a year old, and that many cattle may be said to be wholly reared in the stall. The fat stock, which are sent to the Smithfield cattle-show, and much of what is designed for the market, are kept altogether in the stalls or in loose boxes, as they are here termed.

In regard to milch cows in the country, they are commonly depastured; but in the large dairy establishments of London and its vicinity, they are wholly soiled. After being once placed in the stalls, they are never untied, excepting in some cases where they are loosened for the purpose of being watered, until their milk ceases to be sufficient to meet the expense of their keeping. They are then fattened and sold to the butcher. The feed is cut and daily brought to them in a green state, sometimes from a considerable distance. In such a city, cows, if kept at all, must be kept in the house; and during the season when green feed is attainable, it is of course obtained, for its advantages in increasing the milk.

Two great advantages of soiling cattle are, first, the increase of manure; and second, the keeping of more cattle on the same land.

The increase of manure from soiling is very far beyond what would be supposed by any one not experienced. Where proper provision is made for this purpose, all the manure of the animals is saved, instead of being left and scattered either on the road side, or in the fields, to be dried up by the sun, or washed away by the rain; and it is at hand to be applied as the farmer shall choose. It gives him an opportunity of converting all his long litter, and the straw of his farm, into the most valuable of manure, by using it as an absorbent for a large amount of the liquid portions of the excrements of his cattle. It affords him likewise the power, by properly-constructed gutters and tanks, of saving his liquid manure—the best portion, if well managed, and according to the estimation of many eminent farmers, compared with the solid portions of the manure, in point of value, full two to one.

The next great advantage of soiling is the increased stock which may be kept upon the same land. From the various facts which have come under my observation, where the soil is carefully and judiciously cultivated, and duly manured, and a proper rotation observed, I believe that on land under artificial grass or esculent crops, three animals may be soiled where one only is now grazed. I believe this may be done with equal or superior advantage to the health and thrift of the animals, and that, in most cases, the increase of valuable manure obtained in this way, will much more than pay for any extraordinary trouble of attendance.

Another advantage is in the saving of interior fences upon a farm. Where cattle are kept constantly in barns or yards, the necessity of enclosures is of course done away; and separate from the saving of expense in the case, the convenience of cultivating in long lines and open fields, the saving of land, and the superior neatness of the cultivation, are great and obvious advantages.

The trouble of cutting and carrying the fodder for a large stock, presents to many persons an insuperable objection to soiling. This, however, must depend on local circumstances, which every farmer must take into consideration for himself. Without doubt, in some cases it might be such as to render the experiment ineligible. The difficulty of finding a supply of green feed sufficiently early in the spring, is likewise made an objection. This may be an objection in many localities; but in England proper, where an ample supply of Swedish turnips, carrots, and mangel-wurzel, are grown, and where winter vetches, rye, Italian rye grass, and lucerne, afford an early cutting, this objection does not apply. It has been objected that cows soiled will not give so much milk as when grazed; on the other hand, the testimony of some individuals

with whom I have become acquainted, establishes the contrary. At Teddesley, in Staffordshire, where a large stock is soiled, the opinion is, that the cows do not give so much milk as when grazed. At Glasnevin, Ireland, the opinion of the intelligent superintendent of that establishment is, that their production of milk under the soiling system is much greater than when grazed. In a trial lately reported upon the comparative advantages of feeding cows with malt or barley, and other articles of food, it was found that, upon being taken from the fields to the stalls, the milk of these cows was considerably increased. It is difficult to make a comparison in the case upon which the matter may be confidently determined. The quality of milk must, to a degree, depend upon the nature, and its quantity upon the supply, of the food which the animal receives. Some animals naturally and constitutionally, from peculiarities or circumstances which have never yet been explained, secrete milk of a much richer quality than others. The Alderney or Guernsey cows are remarkable examples of this kind, their milk being much richer than that of any other breed of cows known. Yet that the quality of the milk is not wholly constitutional, but depends to a considerable degree upon the nature of the food on which the cow is fed, is well established. Its quantity, of course, depends upon the supply of food which the animal receives. It seems to be determined by experiments which have been made here, that, of all food, grass fed green will produce the largest secretions of milk. It is found, likewise, by experiment, that in order to the largest secretions of milk, the temperature in which the animal is placed must be comfortable; she must be free from external annoyances; and she must be "at ease in her mind." These things being equal, it is not easy to see why, under an ample supply of fresh grass eaten with a good appetite, there should not be an equal production of milk in the stall, as in the pasture.—*Colman's Tour.*

For the Farmers' Cabinet.

The Potatoe.

Mr. Editor,—In your last No. I notice an article on the Potatoe, relating to the cause and cure of its disease, from your correspondent, D. W. Belisle.

I am sorry to be obliged to differ from that gentleman on many points laid down in his letter. I regret this the more, from the fact that I am proud to number him among my acquaintances. But his views are so different from those of our standard agricultural chemists and vegetable physiologists, and so little sustained by experience; and withal, so liable to lead to error, that I cannot allow myself to remain silent.

He says that the vegetable sap contains "charcoal, hydrogen, and oxygen, and they embrace all the alkalies that the vegetable derives from the earth." As the vegetable derives all its alkalies from the earth, Mr. Belisle would have us believe that "charcoal, hydrogen, and oxygen," contain a great deal of alkali, for many vegetables contain much of this material. Now hydrogen and oxygen are pure elements, and so far from being *alkaline* in their nature, they, in combination with other substances, go to form *acids*, which are directly opposite in their nature to alkalies.

As to charcoal, it does, when fresh, supply a very small quantity of silicate of potash, but the alkaline principle is very far from being sufficient for most plants, even when they grow in a bed of charcoal; but to talk of charcoal supplying vegetables with *all* their alkalies, is to lay aside chemistry and experience. What farmer does not know that most of his land has little or no charcoal in it, and yet his plants grow finely and are productive.

Again, Dr. Liebig holds forth the idea in his Agricultural Chemistry, that vegetables cannot absorb so coarse a compound as charcoal; and, indeed, it is difficult to perceive how charcoal could pass through the minute pores of vegetables—it being recollected that the vegetable has no teeth to chew the charcoal fine enough for its purpose. In all our works on this subject that I have examined, I do not see that any of the botanical nor chemical students, before Mr. Belisle, have been able to discover this charcoal in the sap. I am, therefore, induced to believe that he is mistaken in his views in this respect, as in that of "hydrogen and oxygen" yielding alkalies to the vegetable.

Your correspondent says that ammonia rises from the manure, is absorbed by the plant, and immediately after mingling with the secretions of the plant, poisons it, and then, "and not till then, does the plant undergo any decomposition whatever." If that be the case, how is it that the plant grows luxuriantly until the latter part of July or August, apparently in excellent health. The ammonia commences rising from the hill as soon soon as the manure is placed there, and is absorbed by the leaves of the plant as soon as the plant has leaves to absorb it, yet, for months after, the plant is not affected by it. How is this? There must be something wrong here—experience fails to agree with your correspondent, and the facts of the case do not sustain him.

But we come to the most important part of the communication alluded to above, viz: the remedy for the dreadful disease which is now destroying the potatoe crop. Mr. Belisle's own words are, "The remedy is this: When a farmer sees his potatoe tops thus withering, he should lose no time in mowing them off below the blight, and by this means he will save his crop." There is no doubt that under favourable circumstances, cutting off the tops will prevent the disease, but the crop must be shortened, and the potatoes rendered not fit for use, or at least they will be lessened in nutritive matter. If Mr. Belisle will call on me I will show him potatoes that were perfectly healthy when they were dug up, but after remaining up a few days, became diseased, and are now rapidly rotting. Now at the time these became diseased they had no tops to cut off, consequently the tops did not cause the disease, and "*the* remedy" could not be used. I will also show him a portion of those potatoes which had commenced rotting, but which I have stopped from rotting; and if he will remain with me long enough—say two months—I will take others of those half-rotten potatoes and stop the rot immediately, and the potatoe shall be in excellent order for planting, or for domestic purposes. And I will guarantee that the entire cost of stopping the disease and restoring the vegetable to health, shall not be more than twelve and a half cents per bushel—at any rate I am prepared to take a few hundred thousand bushels at that rate of charge for my services, if I stop the disease; if I do not, I will charge nothing.

If Mr. B. had said that his process was "*a* remedy," I should not so much object; but to say that it, and it only, is "*the* remedy," I must beg leave to put in my protest. I should like to say more of this gentleman's views, but my article has grown to a much greater length than I had at first intended to make it, and must therefore close it.

CHEMICO.

Wilkesbarre, Pa., October 1st, 1846.

The Noisette or Champney Rose.

Rosa Champneyana.

PERHAPS no new roses ever excited more attention than the two varieties which were first produced of this interesting family. When first received in France, the Parisian amateurs were enraptured with it, its habits being so peculiar and distinct from every other class. The origin of the first varieties of this remarkable group, has been announced erroneously to the world by various writers. The original variety is the Champney Rose, or Champney's Pink Cluster, a rose long well known and very widely diffused. It was raised from seed by the late John Champney, Esq., of Charleston, S. C., an eminent and most liberal votary of Flora, from the seed of the White Musk Rose, or Rosa Moschata, fertilized by the old Blush China, and as he had been for a long period in constant correspondence with the late William Prince, he most kindly presented him with two tubs, each containing six plants, grown from cuttings of the original plant. From these an immense number were propagated and sent to England and France. The old *Blush Noisette* Rose was a few years after raised by Phillippe Noisette *from the seed of the Champney Rose*, and this he sent to his brother Louis Noisette, of Paris, under the name of the Noisette Rose. It is more double than its parent, and of much more dwarf and compact growth; the flowers in very large dense panicles. The old *Champney's Pink Cluster*, although not full double, is still quite a favourite for its rapid growth, its appropriateness for pillars and other climbing positions, and for the profusion of its flowers, which are in large panicles much more diffuse than the preceding variety. The subsequent varieties have been produced from both the primitive ones I have named, but as the Champney rose produces seeds far more abundantly than the Blush Noisette, it has doubtless been the parent of much the greater number.

To develope the beauties and admirable qualities of the Noisette Roses, proper attention must be paid to their culture; the soil must be warm, dry at the bottom, and well mellowed and enriched with old well-rotted manure, or black mould from the woods to the depth of two feet; they will not flourish in a wet soil, and if the location is either a wet or heavy soil, a quantity of sand must be mixed with it sufficiently to lighten it, and render it completely permeable, so as to allow of the free passage of all rains through it.

The perfume of the Musk Rose is very apparent: its tendency to bloom in large clusters also shows its affinity to that old and very remarkable rose, but since its introduction to France so many seedlings have been raised from it, and so many of these are evidently hybrids of the Tea-scented and other roses, that some of the roses called *Noisettes*, have almost lost the characters of the group; for, in proportion as the size of the flowers have been increased by hybridizing, their clustering tendency and the number of them in one corymb has been diminished.—*Prince's Manual of Roses.*

Good Housewifery and Evil.

By Thomas Tusser.

Ill huswifery lieth
Till nine of the clock:
Good huswifery trieth
To rise with the cock.

Ill huswifery trusteth
To him and to her:
Good huswifery lusteth
Herself for to stir.

Ill huswifery careth
For this nor for that:
Good huswifery spareth
For fear ye wot what.

Ill huswifery pricketh
Herself up in pride:
Good huswifery tricketh
Her house as a bride.

Ill huswifery one thing
Or other must crave:
Good huswifery nothing
But needful will have.

Ill huswifery moveth
With gossip to spend:
Good huswifery loveth
Her household to tend.

Ill huswifery brooketh
Mad toys in her head:
Good huswifery looketh
That all things be fed.

Ill huswifery bringeth
A shilling to naught:
Good huswifery singeth—
Her coffers full fraught.

Ill huswifery rendeth,
And casteth aside:
Good huswifery mendeth,
Else would it go wide.

Ill huswifery craveth
In secret to borrow:
Good huswifery saveth
To-day, for to-morrow.

Ill huswifery pineth,
Not having to eat:
Good huswifery dineth
With plenty of meat.

The Mustard Plant.

The following paragraph is found in an Address delivered by Jacob Green in Albany, in 1814, before the Society for the Promotion of Useful Arts. In confirmation of the sentiment there expressed more than thirty years ago, that this plant "might yield no trifling profit to the American cultivator," we would refer to the 99th page of our last volume, where the account of a crop raised by J. H. Parmlee, of Ohio, is given by C. J. Fell & Brother, of this city.—Ed.

The Sinapis, or Mustard, is a plant which might yield no trifling profit to the American cultivator. Small clusters of it are seen growing in our fields and gardens; but whether it is a native of the country, or merely the fruit of chance, I am not able to determine. In some catalogues, however, it is marked as an exotic; but our climate is congenial to its habit, and almost every soil is adapted to its growth. A gentleman from Orange county, in this State, has informed me, that he collected from half an acre of but tolerable land, fourteen bushels of the seed, which he believed equal in quality to that of the Sinapis Arvensis, commonly known by the name of Durham mustard. There are many species of this herb, but it would be well for the cultivator to confine his attention to the one just mentioned, the seed of which is more abundant and of a better quality than in the other kinds. The high price given for imported mustard, and the facility with which it can be raised, induce a belief that farmers generally might find their account in making it an article of culture and traffic.

Value of Smoke.

A late number of the British Quarterly Review, has the following statement. Ingenuity and a disposition to turn every thing to account, sometimes bring about curious results. A great deal that is now abandoned as useless, will one day be made subservient to our wants, and perhaps become important agents in ministering to our pleasures.—Ed.

The British Quarterly Review for March, contains the following paragraph:

"A striking instance of economical talent came to our knowledge in the District of Alston Moor. From the smelting earths of one 'house' an arched tunnel conducts the smoke to an outlet at a distance from the works, in a waste spot, where no one can complain of it. The gathering matter or 'fume' resulting from the passage of the smoke, is annually submitted to a process, by which, at that time, it yielded enough to pay for the construction of the chimney. A similar tunnel chimney, three miles in length, was erecting at Allendale. Its fume will yield thousands of pounds sterling per annum. In this case smoke does not end in smoke."

Imported Stock.

The following description, &c., of the stock recently imported by the Massachusetts Society for promoting Agriculture, is written by E. Phinney, one of the active officers of that Society, and we copy from the *Farmers' Library*. It will be read with much interest, and we cannot but commend the public spirit of our eastern friends.—Ed.

The trustees, with an honest desire of promoting the interests of agriculture and improvement in the various branches of rural economy, had, for many years, devoted the income of the Society's funds to premiums on the best cultivated farms, on the various kinds of farm produce, farm stock, and to such other objects as they believed best calculated to promote the interest of the great body of farmers. Of the effect of their labours, the public can the best judge.

It seemed to the trustees that very little progress had been made, particularly in the dairy stock of the country. They could point to no particular object, no decided mark of improvement or permanent change, upon which the future and progressive improvement of our dairy stock could, with any certainty, be calculated.

Thousands of dollars have been offered and awarded in premiums for the best milch cows within the commonwealth, during the last twenty years, and, as appeared to the trustees, *to very little benefit*. Whoever has attended our cattle shows will have occasionally met with a cow remarkable for her milking properties, which the fortunate owner purchased from some drove. This *accidental* cow is exhibited at the cattle show; well authenticated proofs of her great yield of milk or butter are produced; the owner takes the highest prize, and puts the money into his pocket; the calf is sold to the butcher; and the cow the next year is put into the beef barrel. And this has been the beginning and the end of most of the native cows to which the highest prizes have been awarded. The writer knows not a single instance where the offspring of any one of these high-premium native cows has inherited the valuable properties of the dam in a sufficient degree to induce the owner to raise it, with the exception, perhaps, of the famous Groton cow, whose descendants, in the hands of Colonel Jaques, might have added greatly to the value of our dairy stock, had the Colonel possessed the means of carrying out his plans; and, in this instance, the valuable properties of the dam were transmitted to the progeny solely by the means of crossing with the pure breed of a foreign stock. The cautious farmer will not run the risk, nor incur the expense, of raising a calf from stock, of the origin of which, and of the blood of the various breeds that runs in the veins of his favourite cow, he knows nothing. Acting from a belief in the truth of the old adage, which has been taught him from his youth upward, that "a good cow *may* have a bad calf," he can have no assurance that the descendant of his native cow will not take its character from, and inherit the inferior properties of, some near or more remote ancestor. He had rather take his chance in the next drove that comes along, knowing that he shall at least avoid the expense and trouble of rearing a calf upon whose good properties he can make no certain calculation. Now it will hardly be pretended that the offering and awarding of premiums for this description of cows has, or ever will have, the effect to improve the dairy stock of the country.

The writer would by no means detract from the value of these accidentally good cows, the natives of the country. There are, no doubt, to be found among the farmers of Massachusetts, many cows of native origin, possessing as valuable properties for all purposes, except for breeding, as any that can be imported from abroad. And they are not without their value as breeders, where they and their descendants may be crossed with the pure blood of some long and well established race of foreign animals. In this way we may chance to perpetuate the rare qualities of our native cows, united with the with the well established traits of character of the imported stock.

It may be contended that we need not the aid of foreign stock to raise up one of the best breeds of cattle in the world. This may be true; but who will undertake it? What individual farmer has the patience, the skill, the intelligence, and the capital, to engage in a task that will require many years and much capital to bring to any considerable degree of perfection? And where would be the propriety or the economy of undertaking a work of this kind, when, by a little extra expense at the commencement, we may find the work already done to our hands?

Many farmers in this part of the country, though depending principally for their income upon their milch cows, are not aware, it is apprehended, of the small produce derived from them; and would, no doubt, be surprised on learning that their cows generally do not yield an average daily produce of more than two to four quarts of milk for the year.

The average price of milk for the year, when drawn from the cow, will not exceed three cents per quart, either for the purposes

of manufacturing into butter or cheese, or to sell in the market. Let the farmer set off the expense of keeping against his six or twelve cents a day income from his several cows, and he will see but a small chance of acquiring wealth from the income of his dairy. But let him have a stock that, with the same keeping, will yield a daily average produce of six or eight quarts of milk, and he will find the produce of his dairy, which before gave him hardly enough to pay for the feed of his cows, now affording him a net profit, which will more than meet the extra expense which he may incur in the purchase of his improved breed of cows.

It may be said that the expense of keeping the improved breed will be greater than that of the native cows. This may or may not be the case. But the question with the farmer should not be, which will require the most food? but rather, which will give the greatest net profit on what they consume? It is the greatest capacity which the animal possesses of converting her food to milk, which ought, in the estimation of the judicious farmer, to constitute her relative value.

It was with a view of introducing among our farmers a dairy stock that should, with proper care and management, remunerate, and more than remunerate, the expense of keeping, that the trustees were induced to appropriate so considerable a sum to this object.

What they have now done forms but a nucleus or starting point, from which, with the aid and countenance of a liberal public, they hope in due time to diffuse among the farmers of Massachusetts, not only an improved race of animals, but also an ambition to excel in everything that relates to this important branch of rural economy.

The breeds of cattle which the trustees believed, under all the circumstances, to be best adapted to this country, best calculated to promote the object they had in view, and to subserve the wishes and wants of the farmer, were the Ayrshire and North Devon.

The Ayrshire cows have been, for nearly or quite a century, distinguished as deep milkers, and at the same time are known to be a hardy, mild-tempered, and docile race, easily kept, with a disposition to fatten when not in milk, and having a capacity of converting their food to milk beyond that possessed by any other breed of cows in Great Britain.

The venerable Aiton, who may be justly styled the pioneer and champion of improved husbandry in Scotland, and particularly of that branch which relates to dairy stock, says: "The Ayrshires are the most improved breed of cattle to be found in the island, not only for the dairy, in which they have no parallel, under similar circumstances, but also in feeding for the shambles. They are, in fact, a breed of cows that have, by judicious selection, cross coupling, feeding and treatment, for a long series of years, been brought to a state of perfection which fits them, above all others yet known, to answer in almost every diversity of situation where grain and grass can be raised to feed them, for the purposes of the dairy, or for fattening them for beef."

In the dairy establishment of Mr. Harley, at Glasgow, consisting of 150 cows, they were principally of the Ayrshire breed, to which he gave a decided preference over any other breed. The average quantity of milk given by the cows in his establishment, for the year, was eleven quarts per day from each.

In the famous dairy establishment kept by Mr. Rhodes, near London, of 400 to 600 cows, "he had tried the Ayrshires, to the number of 150 at a time, and by him they were highly approved—affording a large quantity of rich milk—fattening in a very short time, when they left off giving milk—and producing beef which was more highly valued, and sold for a higher price in the market than that of the Short-horns."

Aiton asserts that many of the Ayrshire cows, in their best condition, and well fed, will yield at the rate of 1000 gallons of milk in a year, or over ten quarts per day. Rankin, however, states his opinion that Aiton had given the daily average produce too high, and thinks that few herds of twenty cows or over will average more than eight hundred and fifty gallons, or about nine quarts per day. He also states that he had seen thirty-six quarts of milk drawn from a cow in one day, and that he had a three-year old quay that once for six weeks after calving gave twenty-eight quarts per day. The dairymaid predicted that "there had been o'er-muckle talk about her for ony luck to come of her," and he states that she soon afterward received an injury which caused one of her quarters to become dry of milk.

The characteristic points of the Ayrshire cow, when Aiton wrote, were: "Head small, but rather long and tapering at the muzzle; the eye small, but smart and lively; horns small, clear and crooked, and the roots at considerable distance from each other; neck long and slender, tapering toward the head, and no loose skin below; shoulders thin; fore-quarters light; hind-quarters large; back straight; broad behind; joints rather loose and open; carcass deep, and pelvis capacious and wide over the hips, with round, fleshy buttocks; tail long and small; udder capa-

cious, broad and square, stretching forward, and neither fleshy, low hung, nor coarse; the milk veins large and prominent, teats short, and all pointing outward; skin thin and loose; hair soft and woolly."

This is an accurate description of the Ayrshire stock imported some seven or eight years ago by the State Agricultural Society. The improved Ayrshire stock of the present day, which are descended from the famous *Swinley* stock, and of which the recent importation by the Society consists, differ in some respects from those above described by Aiton. The head is shorter, wider between the eyes and horns, thinner in the fore-quarter; the shoulders finer and more closely set; the limbs and body shorter, and the joints more closely and firmly set; the abdomen deeper and more capacious; the udder broader, the milk veins more prominent, and the teats hanging directly down; hair longer, though more silky, and finer in the handling; and are altogether a hardier race of animals than the Ayrshires of former days.

"The colour," says Robertson, "is generally a brown of many hues, from dark to yellow, intermixed and mottled in many a varied form and proportion with white; almost none are of one colour. In a herd of forty or fifty, there will no two of them be alike in colour—in this respect exhibiting a diversity not unlike a bed of tulips, and of as many hues and shades, in an endless variety of beauty."

The North Devon stock has long been celebrated as a breed of cattle beautiful in the highest degree. For the dairy, they cannot be considered equal to the Ayrshires; but, viewing them as uniting the three qualities of working, fattening, and milking, they may be considered as unrivalled. Some of the writers upon English stock give them a high rank as milkers, and Mr. Conyers, of Capt Hill, near Epping, a district almost exclusively devoted to the purposes of the dairy, preferred the North Devons, "on account of their large produce, whether in milk, butter, or by suckling."

"The North Devon oxen," says an English writer, "are unrivaled at the plough. They have a quickness of motion which no other breed can equal, and which very few horses exceed. They have also a docility and goodness of temper, and also a stoutness and honesty at work, to which many teams of horses cannot pretend."

Such is the character given of the breeds of cattle—a bull and four cows of each—which the Society have imported with a view of improving the stock of the country; and in order that there should be no mistake or disappointment as to the character of the respective breeds for purity of blood, and with a view of obtaining the best animals upon the most reasonable terms, the trustees decided on sending out an agent for the purpose of making the selection. And accordingly, Mr. Alexander Bickett, of Lowell, a gentleman of intelligence, and an excellent judge of cattle, who had resided for some years in Scotland, and personally known and highly respected by most of the owners of distinguished herds of cows in and about Ayrshire, was engaged in July last to proceed to England and make the purchase. Mr. Bickett had, within a few years past, attended some of the cattle shows in Scotland—had noticed the best stock, and knew where he could place his hand upon the best cattle in the country. The acquaintance of Mr. Bickett with the respective owners enabled him to treat with them upon terms much more favourable to the Society than could have been done by a stranger. The four Ayrshire cows and the Ayrshire bull selected by him, are probably equal, if not superior, to any other five cattle that could be purchased in Scotland. They are all descended from the purest and best blood of the Ayrshire stock.

In the selection of the North Devon stock, Mr. Bickett applied directly to the Earl of Leicester, from whose beautiful herd of North Devon cows he hoped to be allowed to make the purchase. When it was made known to the young Earl that the stock was wanted for the Massachusetts Society for Promoting Agriculture, he generously and very readily fell in with the views of Mr. Bickett; and, possessing all the kind feelings of his father, the late venerable Earl of Leicester, toward the people of this country, he allowed Mr. B. to select from his flock, at a very moderate price, a cow and three beautiful heifers, all in calf by one of the most celebrated North Devon bulls in the country. The Earl having no bull that he could part with, he recommended a young bull of Mr. Blomfield, which Mr. Bickett succeeded, after much importunity, in purchasing.

The cattle were all shipped at Liverpool, about the first of September last, and arrived in Boston about the first of October. They were attended on the voyage by Mr. Bickett, and with so much care and fidelity on his part that no injury happened to them, and they were in as fine condition when landed in Boston as when put on board the ship at Liverpool. The North Devon cow calved on the passage from Europe, and the three

North Devon heifers have calved since their arrival—the four calves furnishing a fine specimen of this beautiful stock.

The appearance of the cattle on their arrival in Boston was very gratifying to the trustees and all who saw them, and such as was highly creditable to the skill of Mr. Bickett, and to his indefatigable care and attention to them while on shipboard.

The cattle on their arrival were placed under the care of the subscriber, at his farm in Lexington, where the public are respectfully invited to call and view them.

From the American Quarterly Journal.

On the Adaptation of Farming to Circumstances.

An article which appeared in the April No. of your Journal* has arrested my attention, on the impossibility of the East offering any competition to the West in the ordinary products of the farm, and if I had time, I should take pleasure in investigating the matter at large, in some important points which I think the author of that communication has neglected. The fact is a very important one, that farmers in the middle and eastern States are wasting their energies, and throwing away their resources, in the hopeless effort to produce the same articles that are grown in the new States, and to sell them in their own markets at a price which will *pay the interest* on the value of their land—then, the *expense of cultivation*—and lastly, the cost of *getting them to market*—and after all this, yield a *fair profit*. These four particulars must strike you, as they perhaps often have, as obstacles of no small magnitude in the way of the eastern farmer.

The greatest of them is unquestionably the first, and is fairly and satisfactorily examined, quite at large, by your April correspondent, Col. T. J. Carmichael. In fact, he has done justice, as far as possible in the short space he employs, to all these hindrances, and it really strikes me that if our farmers would now "*think* on these things," a change of immense magnitude would be brought about.

It seems to be a settled conviction in the minds of all our agriculturists now-a-days, that if a farmer does not grow a certain article for the market, yet, if he is a consumer of that article, he must at least grow as much as he consumes. No idea can be more false, nor founded upon more fallacious grounds, as may be shown in very few words, not in the shape of argument, but appeal to every man's own practices in his pursuits. It would be considered very ridiculous for a farmer to tan his own hides, and make his own shoes, simply because he is obliged to wear them. There was a time when our farmers' wives carded and spun, and wove, oftentimes, the materials for their husband's coat and pantaloons. But they did it because they were obliged to, and because they could do it cheaper than they could buy the materials. There are few or none who do this now, and they would be set down as possessed of little prudence or economy if they were to do it. They would be throwing away their time, which could be employed to better purpose. They would be throwing away the materials, which they could sell for more, in proportion, than they are worth in their homespun fabric. They know they can sell the material, and employ their time and labour in the production of other things, which will purchase the clothing they used to manufacture, and will leave them a handsome profit. This is a view of the case perfectly on a parallel with the farmer who continues to raise, at the present day of universal and far-reaching competition, an article of food simply because he is a consumer of that article. He is infinitely more foolish who grows an article *for market*, when he can buy it cheaper than he can grow it, or can raise an article which he can barter for it, at a large profit. As well should the cotton manufacturer be also a manufacturer of linens, and woolens, and silks, only because he wears shirts and pantaloons, and his wife and daughters wear dresses of the latter material.

Must you sow no wheat? Not a bushel. No rye? None. No corn? No, nothing that another can raise cheaper than you, while at the same time you can raise on the same amount of land anything else which will purchase all you want of these and leave you a profit. If you do, you show a lamentable want of foresight, and it is not to be wondered at that you are not making money, and that your farm is getting behind hand. You need not run away to the West to avoid the evil, as so many have already done. You have the ability—the skill—all but the enterprise—to revolutionize your business and put yourself at once in the way of becoming a rich and thriving farmer. And how? That is the question we are about to answer, and we hope to do so in a way to open your eyes to the truth.

The products of a farm must be adapted to the peculiar circumstances under which it is situated—its value in money—its contiguity to, or remoteness from market—the

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* See last No. of the Cabinet, page 62.

cost of growing, and the price in market, &c. And here is the point where our leading, or would be leading men in agriculture, have missed the mark. I have already made it sufficiently manifest that, because a man owns a farm and cultivates it, is no reason why he should raise every product which will grow under his latitude. Better by far would it be for him, if he would grow some one product which would pay him.

The character of the soil—its chemical and mechanical properties, are important to be known and understood, but the character of the market is a matter of greater moment. By the proper application of manures, and good cultivation of the soil, a man utterly unversed in the science of the thing, may gather large crops and remunerating ones, if he has an eye to the market he is to sell in, otherwise he will find it a losing game. It should be the object of leading men, to show the practical farmer the true extent and the proper bearing of his resources, before anything else. If, in the State of New York, the same efforts had been made to induce farmers to adapt their labour and skill to the circumstances under which they live, that have been made to induce them to become scientific men, we should now probably see a large part of the State a garden, compared with its existing barrenness. There has been too much loose and indefinite and unpointed direction to the business of farming, for a few years past. Instead of pointing out distinctly the direction in which the labour of the farmer can be applied so as to be most productive; instead of investigating dispassionately the condition under which the farmers in the different parts of this widely-extended country are placed, all efforts to improve his position and to advance the art have been a sort of vague inducement to him to try to increase and improve himself in the production of those very articles in the production of which he has to compete with new soils and cheap lands, and every other disadvantage. It appears to me that the first step to make our farmers improve, should be to persuade them to give up the growing of such articles, and enter upon the cultivation of such as they have a manifest and real advantage in. And what are these articles?

In answering this question, I might enumerate a long list of what may be called *perishable* products of the soil, which I think will exclude all our grains, and the growth of wool, and in connection with them I would also include the raising and fattening of animals for the butcher, and perhaps, collaterly the growth of the mulberry and the raising of silk worms. I say collaterally, because I think this business may be made profitable to the farmer, as a secondary occupation for his family during hours which they can readily spare for the care of worms, without interfering with other avocations, and that in at least some cases, it may be a valuable addition to the labour of the farm to fill up actually vacant time, when the farm is devoted to such objects of culture as do not fill up the whole time. Such will be preeminently the case in the instance of farming under the necessity of circumstances which I am about to mention, and which it strikes me is the species of farming adapted to the Hudson river valley, and the other great valleys and thoroughfares of this eastern part of this continent, which have ready—easy—and rapid communication with the great markets of the country, and especially with foreign markets. But I am an Orange county man, and I am looking now principally at the interests of the river valley in which I live. If my views appear to those farmers who live in other sections as applicable to their condition and circumstances, it is the easiest thing in the world for them to apply the suggestions, which I can assure them they are fully welcome to, with the wish that they may profit by them.

I have spoken of regulating farming according to the circumstances in which a farmer is placed. In this I will not include the character of his soil, for he may make his soil what he pleases. Yet this might be, and actually is a circumstance of considerable importance. But I shall have special reference to the farmer's proximity to market, including of course the value of his land and the cost of producing. And these circumstances alone should demand a serious consideration in the mind of any man who makes the Hudson river the means of transporting his produce to the market in the city of New York. It has been demonstrated, I think, that he can not grow wheat and offer any reasonable competition to the West. He may *live* by raising it, and that he could do if he had no market. But his object is to sell and make money, and he should not be content to do this at a disadvantage. What then shall he grow?

I must divide my answer in order to suit my circumstances. And in the first place a large portion of the early vegetables which are consumed in the city of New York are brought from a great distance, compared with many places on the river, where they might be grown to advantage. There is scarcely a little village, or landing place, which has not its market vessels, running a week or oftener, to market with the products of the neighbourhood. Whenever,

then, the place is in such proximity to the city that vegetables can be gathered in the afternoon and sent to market by daylight next morning, a considerable portion of the land and the industry of the inhabitants should be diverted to the growth of such articles as are now raised in the gardens about the city, to be sold as green vegetables.

I know that some will open their eyes in alarm, and tell me at once that I will have the market glutted and the produce all thrown into the river.' I will have no such thing. A contingency of this kind may happen, that if all were to enter upon this branch of husbandry at once, the first year might exhibit a glutted market, for the population of our large cities are not prepared for a sudden expansion in the quantity of any article of food. But as soon as it is ascertained that the amount in market is greater, and for sale cheaper, the demand will be increased, and prices will again become firm and profitable. The fact now is, that far less of wholesome vegetables, in the spring of the year, find their way to the large cities than the health of the population demands, and with the health are implicated still more important considerations, of morals, &c. A vastly increased quantity might be consumed, and would be, if it were to become so plenty as once to become more necessary than it now is. The city of New York now depends for its usual supply of fresh vegetables for its vast populace, upon the few acres of ground cultivated for this purpose in its immediate vicinity. It is capable, with advantage, of absorbing a much larger amount, and it would afford a profitable and endless market for thousands of acres of land within sixty miles.

Again, the supply of articles for winter food, is gathered from all parts of the country. The production of these is not even confined to the State, but they are brought from the far West, and with all the apparent abundance there is actual need for more. When we see the single article of potatoes alone, brought from all parts of this country not only, but even imported from Ireland and France, we ought to be stimulated to greater energy in our agricultural affairs. If the fields in the Hudson valley, now bearing a profitless and foolish harvest of wheat and rye, were planted with this great staple, as it may be called, the growers would find their pockets heavier after they send their produce to market this fall. But I have what appears to me a far more important and profitable article to mention, and that is *fruit*. The raising of fruit for the supply of our great markets at home is a business of no little consequence, and it is not half done. Half do I say? The beginning is hardly made. Look for a moment at the quality of fruits with which the markets are supplied. They are by no means of the best character. Thousands of barrels of poor fruit are every year sold and bought in the city of New York alone, because the purchasers can get no better. Good fruits are always saleable. The market is never glutted with them. There is never enough. I have heard Doctor Underhill, of Croton Point, relate his experience in the cultivation of the grape for the New York market. His friends endeavoured to dissuade him from going so largely into the enterprise, for fear of glutting the market. But he was too farseeing for that; and he has not been disappointed, the fact being known that good grapes could be had, and there are not yet enough to supply the demand, though the doctor sells many thousand dollars worth every year. The people only want to know that they can get good fruit, and it seems as if the more you send to market, the more is wanted. There is no such thing as glutting the market now-a-days. Suppose our large cities will not consume all: suppose such a thing to happen; what will be the consequence? Simply this: the communication with Europe is so speedy now, that many fruits deemed now too perishable to send so far, would be exported to England and other countries in a fine state of preservation. To some of our good fruits the market of the world is open, and the quantity to be consumed is unbounded.

I wish therefore to call the attention of farmers on the Hudson river, every one of them, to the cultivation of the best fruits they can raise. There is no sort of danger of overdoing the matter. The whole river valley would not grow more than can readily be sold, and no crop can be raised which is so profitable. The objection urged by many that trees are slow in growing, and that it will be a number of years before they become productive, is no argument against me. The difficulty may be obviated in many ways, which will suggest themselves to the mind of any thinking man; as by going gradually into the business; by growing those kinds which come soonest to maturity, and soonest fail, in the intervals of those kinds which are intended to form the permanent orchard; or by connecting with the business some other kind of husbandry, which becomes immediately profitable. In any of these ways, and in others which will suggest themselves, the difficulties may all be obviated.

I know of no branch of husbandry which can be so profitably connected with fruit

growing as the silk business. I can not enter into its consideration at large, here, but I will say that while his fruit trees are growing, the farmer will find it profitable, and afterwards he can give it up to his wife and children. I hope to say more about this hereafter, and also something in reference to the duties of young farmers in entering upon this business. I shall feel gratified if I have been the means of opening the eyes of any one to his interest. The truth is, agriculture on the Hudson river will never pay as it ought, till it is conducted with strict reference to circumstances. And I am satisfied that here fruit growing offers decidedly the greatest profit.

Yours, AGRICOLA.

Newburgh, July 4th, 1846.

Although the foregoing remarks are written by an "Orange County man," and would seem more particularly adapted to the operations of the farmer in the valley of the Hudson, yet it will be found that every one on the Atlantic border, and within reach of the markets of the great cities of Boston, New York, Philadelphia, and Baltimore, may pore over them with profit. We have, over and again, from time to time, inculcated similar views in the Cabinet, and it is with particular satisfaction that we give them a place, as the subject is so well handled. Let our friends in Jersey,—which lime, marl, and good farming, have made a garden spot—see to it. Nature has placed her and Delaware contiguous to three of the best markets in the country, and given to them soils particularly adapted to the production of perishable articles, always needed in quantities that will be increased by the supply. Their railroads and steamboats place them within a very few hours' travel of those cities, and beyond the reach of competition of the cheap and fertile lands of the West, so far as these small but almost infinitely numerous perishable commodities are concerned. Where, in the whole country, are there districts so eligibly situated, and so eminently blessed with just such soils as they need, as are New Jersey and Delaware? but their farmers must not be longer content to tread exactly in the path their fathers trod in: they must *think*, and suffer their reflections to lead them into pursuits adapted to the situation they find themselves in, so different from that of their fathers. Active business men must yield to circumstances, and they must watch every movement around them. If the shipping merchant finds the trade which he and his fathers have prospered in, superseded by those who can supply it cheaper than he possibly can, he must turn his vessel in another direction. So because we here have been successfully raising wheat, and fatting cattle, it does not follow that it is sound policy to cling to it, when others can supply these articles cheaper; particularly when there is so wide and so promising a field open before us in another direction.—ED.

Potatoe Rot.

In the same garden, last spring, were planted two patches of potatoes, having only about a two feet path between them. The soil in which they were planted is what is called "red shell." The situation of the ground, the time of planting, the kind of potatoe, the cultivation of the soil and plant, &c., were in both patches the same; neither, so far as we can discover, was there any difference, except in the manner of planting; and yet one patch is greatly injured by the "rot," while the other does not possess the least semblance of disease; but, on the contrary, we have a fine crop of solid, healthy potatoes. This difference we attribute altogether to the presence of lime. After the potatoes were planted, a layer of manure was placed upon them, and in that patch where the "rot" has not appeared, a layer of slacked lime was placed upon the manure, after which they were covered with earth. So that one patch had manure, and the other manure and lime. And there is no cause to which we can attribute the preservation of the crop, that we can conceive, except it be the lime.

We account for it on this principle. The disease, I apprehend, is generated by the sudden changes in the season, and the cure is effected by the prevention of their effects upon the plant. These sudden changes have been very prevalent for the last few years. A spell of dry, hot weather, rapidly absorbs the moisture from the earth, and thus checks the growth of the potatoe; for potatoes will not grow where the ground is dry and hard. Now comes a heavy rain, the potatoe starts growing, the temperature of the soil is suddenly changed, and disease is generated. But lime is a good preventive. While the manure nourishes the plant, the lime during and under the influence of the dry weather, becomes somewhat hard, forming a kind of crust, thus preventing the moisture beneath from evaporating, and the potatoe is kept constantly growing; there being always sufficient moisture retained for that purpose. Again, during a heavy rain, the lime absorbs the water, becomes saturated, throws out its latent heat, and thus checks any sudden change in the temperature around the potatoe. So that by keeping up an even temperature and due degree of moisture, the potatoe continues healthy and fruitful.

Moreover, if it is a fact that worms breed in the potatoe vine, methinks lime will prevent it; because the substance of the lime penetrating through the whole plant will destroy their influence, the same as it does upon cucumbers. In my opinion, if the potatoe is kept in a growing, healthy state, subject to the penetrating influence of lime, no worm nor disease will appear. We state

this fact for the benefit of the public, and as the remedy is a simple one, within the reach of almost every farmer, it is certainly worthy of receiving a fair trial.—*Ledger.*

Overgrown Wheat and tender Straw.

Some highly cultivated farms, where dung only is used as a dressing, having attained an average of about five quarters wheat per acre, and finding it subject to lay from overgrowth, it is proposed to check this overgrowth by burning or other means of reducing the richness of the soil, thus something like limiting the produce to about five quarters per acre, a limit within that of cottage gardens and allotments, and which has been doubted even under the plough. Surely, then, there is room for trying other means of stiffening the straw and promoting the formation of grain, before taking measures to check the fertility of the soil. Salt is well known to produce both these effects; the wheats on our sea-board being noted for heavy ears, and thin stiff straw; and wheat will bear much salt, Johnson—not Johnstone—says 10 to 20 bushels per acre. Mild lime produces a like effect, but not caustic lime, on rich soils, where it can liberate ammonia. To check the overgrowth, therefore, and increase the grain, 10 or 12 bushels—say six to seven cwt.—of salt, with twice as much mild lime, where required, might be harrowed in upon the seed, or perhaps better top dressed on the young plant in spring, especially if winter proud; superphosphate of lime should conduce to the same result, its acidity retarding the stimulative action of ammonia on vegetation, and its phosphorus determining to the formation of grain; two cwt. per acre might be mixed with the salt, varying the quantities experimentally, on the small scale, as a guide, and eventually we may hope attaining a stiff straw under crops much heavier than five quarters per acre. Special manuring is particularly applicable to cases of this kind; but my impression is that almost every crop might be improved by special top-dressing in its early growth. Alkaline silicates have a direct tendency to harden the stalk, but silicate of potash appears, from the experiments on record, to promote the growth of straw; of silicate of soda, which costs less, I have seen no reports; it might be tried at the rate of one cwt. per acre, mixed with the dressings above, but would be safest on quite a small scale.—*Agricultural Gazette.*

Information Respectfully Desired.—As Chairman of a Committee, appointed at the meeting of the Farmers' and Gardeners' Convention, at New York, in October last, "to collect information," the undersigned respectfully requests the Secretaries of all Agricultural Societies and Farmers' Clubs in the United States, to address to him a note, stating the locality of the Society, and the names of the President and Secretary.

The list, when completed, will be printed, and a copy sent to each Secretary. The object is to establish the means of correspondence, and interchange of information and views, for the better protection of the rights, and more efficient improvement of the practice, of agriculture.

Agricultural and other editors are respectfully requested to give this one insertion. There are nearly six hundred such Societies and Clubs in Great Britain, all well known to, and in correspondence with each other.

J. S. Skinner, New York.

The Profits of Farming.

The following is transcribed from the leading article of your *Gazette* of the 25th ult:—

"You and I cultivate adjoining acres of equal quality; you raise 30 bushels on your acre by better management and skill and knowledge than that which enables me to grow but 25 on mine. At 6*s.* a bushel, you will make more money than I shall by selling mine at 7*s.* Teach me but your mode of farming, skilful neighbour, and with an odd mark of 40 acres I shall jog home from the market, where wheat is selling at 48*s.* a quarter, a 'better man' by £10 than I now do after selling at 56*s.* Sure never was paradox more susceptible of arithmetic! Let the grower of 20 bushels an acre add but four bushels to his produce by a small accession of skill and knowledge, and he will make more money at 6*s.* a bushel than he made before at 7*s.*"

You and I shall be, for the sake of explanation, respectively called A. and B. A. therefore grows 30 bushels per acre; B. only 25 on 40 acres of land of similar quality. Why does A. grow the extra quantity of five bushels per acre on his 40 acres of land, making in all 200 bushels? Not by a "small accession of skill and knowledge" only, but because he has expended capital with skill and knowledge, and brought his land from a state of nature to a fit state of cultivation, expended additional money again in the cultivation of his crop by keeping down weeds, the natural produce of the soil; and also additional money in reaping, harvesting, and thrashing the extra bulk of corn grown on his land to that grown on his neighbour B.'s land. Would it not be fair,

then, that A. should expect, on the sale of his crop, to obtain more money than B. He would be the loser if he did not; yet if he sells his corn 1*s.* per bushel cheaper than B., he would not realize so much as B., as I shall endeavour to show. A.'s 40 acres of land must, in the first instance, be drained at an expense of £4 per acre, making £160.

Interest on £160 at 10 per cent.				£16	0*s.*	0*d.*
Additional expenses of tillage, hoeing, and weeding, at 5*s.* per acre				10	0	0
Additional expenses of reaping, harvesting, and thrashing, at 2*s.* 6*d.* per acre,				5	0	0
			Making,	£31	0	0
Extra expense of the year's cultivation of A.'s 40 acres of land, and for which he obtains 200 bushels of corn more than his neighbour B., which he sells at 6*s.* a bushel, making				60	0	0
Deduct extra expenses of cultivation as shown	£31	0	0			
Market expenses, and delivering 200 bushels or 25 qrs.	2	10	0	—33	10	0
In favour of A. if he sold his corn at the same price as B.				£26	10*s.*	0*d.*

But B. sells his corn at 1*s.* a bushel dearer than A., and grows on his 40 acres of land 1000 bushels; B. therefore obtains for his produce 1000 shillings, or £50 more than A. would on a like quantity.

Which, then, has done best by his crop; A. who, by his good cultivation, capital, and skill, has produced the larger crop, or B. who has not applied any extra capital, skill, or knowledge, but has obtained for his corn 1*s.* a bushel more than his neighbour A.?

The account will stand thus:

B. produces 1000 bushels at 7*s.*				£350	0*s.*	0*d.*
A. produces 1200 at 6*s.*	£360	0	0			
Deduct A.'s extra expenses of cultivation and marketing, as shown	£33	10	0	—326	10	0
Balance in favour of B.				£23	10	0

It may be, and is, true that extra capital, skill, and knowledge, will employ more labour, and produce more corn, both of which may be for the general good; but it is not true that it ought to enable the producer to sell at a lower price. Skill and knowledge ought to be paid for, and, independently of his extra capital applied, A. is entitled to expect a higher remuneration than his less skilful neighbour B., which, however, he does not obtain, because in "trying to reduce prices," he has overlooked the extra cost he has incurred in producing the larger crop, which oversight must sooner or later reduce his capital, which is as necessary to successful cultivation as skill and knowledge.—*Gardeners' Chronicle.*

Hay Making.

A very pretty specimen of rapid hay gathering is detailed below by R. L. Pell, a well known farmer of New York, in a letter dated the 18th of July, directed to the President of the American Institute. We copy from the *Farmer and Mechanic.*

To have struck into a field of thirty acres of timothy on a Second-day morning, that would yield two and a half tons to the acre, and have had uninterruptedly fine weather till the close of the week, when 75 tons, sweet and fresh, were found to be in the mow, was capable of yielding no trifling amount of satisfaction to the thrifty farmer. The gathering of good crops of grass and grain, in fine weather, is really delightful. There is no part of the farm duties more calculated to bring out a man's good humor, and to make him feel pleased with himself and his labours. He is sailing on a smooth sea, and every breeze is blowing fair. We should like to have followed the revolving horse-rake, or to have handled the fork in this lot.—Ed.

On Monday morning, the 6th of July last, at half past four o'clock, I commenced cutting a thirty acre field of timothy grass, and on Saturday evening, the 12th, at seven o'clock, the contents of the field, 75 tons, were stowed away in my barn for winter consumption, and I can assure you, that it is in as perfect order as the sample now before you—presenting to the eye the same green appearance, which it will retain for years if kept from light, with all its saccharine qualities unimpaired.

I employed seven men and one boy, who alternately mowed, spread, loaded the wagon, drew in, stowed away, etc.; immediately after the grass was cut, it was spread as thin as possible over the field, and was turned once before noon. At one o'clock it was raked into windrows and cocked; at two o'clock the wagon commenced drawing into the barn, where it was packed and cured with half a bushel to one bushel of salt per ton. At evening, all the grass cut before three o'clock was drawn in and stowed, retaining all the nutritious qualities required to form flesh, bone, muscle, and to promote growth in the animal to be fed on it—having lost only 14 per cent of water, which was replaced by salt. In fact, therefore, my hay is as heavy as it was when standing in the field, *or nearly so.* The salt draws out the water, which passes off by evaporation, and takes possession of the pores, adding to the weight of the hay, and curing it on the same principle as it does pork or beef. I am very respectfully, your obedient servant.

To Destroy Roaches.—Mix a tablespoonful of red lead and Indian meal, with sufficient of molasses to make a thick batter, and place the mixture at night on a plate or piece of board on the hearth, or in the closet frequented by these vermin. They will eat it, and be poisoned by it.

List of Premiums of Philadelphia Agricultural Society.

NEAT CATTLE UNDER TWO YEARS OLD.

The committee appointed as Judges of neat cattle, under two years old, after having carefully examined the different animals submitted to their view, do award the following premiums, viz:

For the best Ayrshire bull, between one and two years old, to George Blight, for Ayrshire, $4.

For the best Alderney bull, between one and two years old, to P. Physick, for Sir Robert Peel, $4.

For the best Durham heifer, between one and two years old, to James Gowen, for Isabella, $6.

For the next best do. do., to Dr. J. Rhea Barton, for Kate Clover, $3.

For the best Ayrshire heifer, between one and two years old, to George H. Thompson, for Effy, $4.

For the best heifer, of mixed breed, between one and two years old, to William Blackburn, for Belle, $4.

For the next best do. do., to George Martin, for Fairy, $2.

For the best Durham bull calf, between four months and one year old, to John G. Palmer, for Seneca White, $2.

For the best Devon bull calf, between four months and one year old, to Morris Longstreth, for Porter, $2.

For the best Durham heifer calf, between four months and one year old, to James Gowen, for Miss Prim, $2.

For the best Devon heifer calf, between four months and one year old, to Morris Longstreth, for Fanny, $2.

For the best heifer of mixed breed, between four months and one year old, to John G. Falmer, for Darby, $2.

John M. George,
Dennis Kelly,
John Johnson.

Philadelphia Co., Sept. 30th, 1846.

NEAT CATTLE OVER TWO YEARS OLD.

The committee on cattle over two years old, report—that after having examined the cattle presented to them, they award the following premiums:

For the best Durham bull, over three years old, to Col. K. Smith, for his bull Malcolm, $10.

For the next best, to Philip Garrett, for Glenroy, $5.

For the best Durham bull, between two and three years old, to William Webster' for Chance, $8.

For the next best, to C. S. Smith, for Kempton, $4.

For the best bull of Devon blood, to William Blackburne, for Governor, $8.

For the next best, to Judge Longstreth, for Doctor, $4.

Ayrshire and Alderney bulls—none offered.

For the best Durham cow over four years old, to Mr. Gowen, for Miss Model, $6.

For the next best, to Mr. Gowen, for Ellen Kirby, $4.

For the best Durham cow, between two and four years old, to Samuel Overn, for Miss Lucy, $8.

For the next best, to Mr. Gowen, for Bessy Bell, $4.

Durham heifers between two and three years old—none offered.

For the best heifer of mixed breed, between two and three years old, to Samuel Cooper, for Lady Jane, $4.

For the next best, to Jacob Serrill, for Rose, $2.

For the best cow of Devon blood, to Judge Longstreth, for Rosa, $6.

For the next best, to Owen Sheridan, $3.

For the best Ayrshire cow, to George H. Thompson, for Ayrie, $6.

For the best Alderney cow, to Philip Physick, for May Flower, $6.

For the next best, to C. S. Smith, for Cynthia, $3.

For the best cow of mixed blood, to Samuel Cooper, for Fair Hellen, $4.

For the next best, to C. S. Smith, for Fanny, $2.

For the best cow of native breed, to George Martin, for Carey, $4.

For the next best, to George Martin, for Strawberry, $2.

For the best yoke of working oxen, reference being had to their performance, to Mr. Blight, $10.

No fat ox, or steer, or heifer offered.

Many very fine Durhams were exhibited by Mr. Gowen, in addition to those to which premiums were awarded—among them his bull Bruce, and cow Cleopatra—the latter of which was by the rules excluded, having heretofore been honoured with the Society's highest premium.

The Judges are also pleased to observe a considerable improvement in the Devon breed exhibited.

Some fine cattle of the mixed and native breeds were exhibited by S. S. Richie and others.

The committee have to express regret that the number of cattle exhibited was

much smaller than on former occasions, and call on farmers and others, not to relax in their exertions to make these periodical exhibitions interesting, by sending their stock.

THOMAS S. WOODWARD,
HENRY CHORLEY,
DAVID GEORGE.

ON HORSES.

The undersigned, a committee appointed by the Society for the Promotion of Agriculture of the County of Philadelphia, for the examination of horses, respectfully offer the following report:

For the best thorough bred stud horse, they award to Mercer, property of James Hammel, first premium, $10.

Next best—none offered.

For the best stud horse adapted to field or road, they award to John Consul, property of W. Cottman, the first premium of $8.

For the next best do., to Prince Albert, property of W. Cottman, a premium of $4.

For the best thorough bred brood mare, to James Hammel, for his bay mare Stella, they award the premium of $8.

Next best do.—none offered.

For the best mare, adapted to field or road, to the bay mare Nelly, property of Manuel Eyre, the first premium of $8.

Next best do., to S. S. Richie's brown mare, Jenny Blackburne, premium of $4.

For the best horse colt, between two and four years old, to Perry's Victory, sired by American Perry, Sr., property of J. Michenor, first premium of $6.

For the next best do., to Alfred, property of W. Blackburn, a premium of $3.

For the best filly or mare colt, between two and four years old, to Cornelius S. Smith, for his sorrel mare Fanny, first premium of $6.

For the next best do., Fairy, property of Owen Sheridan, a premium of $3.

For the best filly or mare colt, between one and two years old, to Caleb Haines, for his roan filly, by Edward Harris's Norman horse Diligence, they award the premium of $4.

A. L. ELWYN, *Chairman.*
ABRAHAM R. CULP,
N. R. WOODWARD, of Md.
W. W. W. BOWIE, do.

AGRICULTURAL IMPLEMENTS AND PRODUCE.

The committee on Agricultural Implements and Produce, having examined the different articles under their notice, beg leave to report:—In fulfilling their duties they have found it very difficult to decide as to the relative merits of the different articles. They award the following premiums:

To Gattling's Patent Wheat Drill, first premium, $4.

To D. O. Prouty's next best do., second premium, $2.

To D. O. Prouty's best Straw Cutter, first premium, $4.

To D. O. Prouty's second best do., second premium, $2.

To Mr. Urmer, best Straw and Corn Cutter, first premium, $6.

To Mr. Urmer, second best do., second premium, $3.

To E. Chandler, best Corn Sheller, first premium, $4.

To D. O. Prouty, second best do., second premium, $2.

To E. Chandler, best Wheat Fan, first premium, $4.

To D. O. Prouty, second best do., second premium, $2.

To D. O. Prouty, best display of Agricultural Implements, $10.

To E. Chandler, second best do., $5.

For Birkindine's Water Ram, a premium of $3.

For C. H. Farnham's do. do. $3.

For white Mediterranean wheat, to James Taylor, Bucks county, $3.

For red do. do., to J. C. Ford, $3.

For do. do. do., second best, to J. Newton, $1.

For Flint corn, to Morris Longstreth, first premium, $2.

For the best mixed do., to Isaac Newton, first premium, $2.

For the second best do., to C. W. Harrison, second premium, $1.

For the best Oats, to J. S. Huber, first premium, $2.

For the best Mercer potatoes, to J. Whartenby, first premium, $2.

For the second best do., to J. C. Ford, second premium, $1.

For the best Agricultural display, to G. Blight, $8.

For very fine display of Apples, twelve varieties, to A. Cornell, $3.

For Floral horse and plough, to Robert Henry, gardener of G. Blight, $3.

For an elegant display of agricultural products of field labour, from Mr. Charles P. Duval, of Germantown, the committee award a complimentary premium of $3.

MORRIS LONGSTRETH, *Ch'n.*
SAMUEL WILLIAMS,
JESSE GEORGE,
THOMAS S. DAVIS,
ROBERT T. POTTS,
G. EMERSON.

SWINE AND SHEEP.

The committee on Swine report, that after carefully examining the entire herd presented for exhibition, they award the first premium to Godfrey Hague, for the best boar, $4.

For the next best, to John Jones, $2.

For the best boar, over six months and under one year old, to James Esray, for his boar J. O. E., $4.

For the next best of the same age, there was no competition.

For the best sow, of Chester county breed, to George Blight, $4.

For the second best sow, to G. Blight, $2.

For the best sow over six months and under one year old, to Philip Garrett, $4.

For the second best of the same age, there was no competition.

For the best boar pig, between two and six months old, to Philip Garrett, $3.

For the next best, to the same, $2.

For the best sow pig, between two and six months old, to Philip Garrett, $3.

For the second best, to the same, $2.

For the best five pigs, under two months old, to Reese Pyatt, $4.

For the next best of the same age, to Jacob Whartenby, $3.

The committee cannot but commend Philip Garrett for the spirit which he manifested in bringing his Stag Billy to the exhibition for display.

The committee were also much gratified with the fine lot of pigs, of the Chester Co. breed, displayed by Samuel Woodward.

The same committee beg leave respectfully to offer the following report on sheep.

It is considered a matter of regret that so few sheep were offered for exhibition.

For the best Leicester buck, the committee award to Aaron Clement, $4.

For the next best, to George Martin, $2.

For the best Southdown buck, over one year old, to Aaron Clement, $4.

For the next best, to Aaron Clement, $2.

For the best improved buck, of mixed breed, over one year old, to Aaron Clement, $2.

For the four best ewes, over one year old, to Aaron Clement, $4.

For the second best there was no competition.

Mr. Isaac Newton exhibited two very fine ewe lambs, of mixed breed, of which there was not a sufficient number to compete for a premium.

All of which is respectfully submitted.

John Lardner,
David Whitall,
Anthony T. Newbold,
Committee.

PLOUGHS AND PLOUGHING.

First premium for ploughing, to Croasdel Warner.

Second do., to Samuel Cox.

First premium for ploughs, to Mr. Prouty.

Second do., to B. Wiggins.

BUTTER AND POULTRY.

The committee award the first premium for fresh butter, a silver butter knife, the value of $5, to Philip Physick of Germantown; the second premium of $3, to John Johnson, of Lower Merion. The butter exhibited fully sustained the character of Philadelphia county, in the production of that article. That for which the first premium was awarded, is judged by your committee to excel any heretofore produced.

The committee award to Samuel C. Ford the premium of a silver butter knife, of the value of $5, for a jar of salted butter of a superior quality, made in the month of June, and retaining all its original sweetness and flavour. The committee award a premium of $2 to Joseph Davis, of New Jersey, for the best pair of Jersey Blue fowls. To A. T. Newbold, of Bridesburg, a premium of $2, for the best pair of improved breed of fowls. To J. S. Huber, the second premium of $1, for the second best pair of improved breed of fowls. To A. T. Newbold, the premium of $2, for the best pair of capons. To Philip Physick, of Germantown, the premium of $2, for the best pair of turkeys. To William Blackburn, the first premium of $2, for the best pair of ducks; and to Philip Physick, of Germantown, the premium of $1, for the second best pair of ducks.

Which is respectfully submitted.

Samuel C. Ford,
Asher Moore,
Cornelius J. Smith,
George Blight.

Sept. 30th, 1846.

Isaac Newton furnished the Society with Ice Cream at their dinner, for which the Society awarded him a complimentary premium of $10.

Report.

To the Philadelphia Society for Promoting Agriculture:—

The committee of arrangement appointed in May last, to prepare for holding the Annual Exhibition of the Society at the Rising Sun Village, on the 30th of September and 1st of October, offer the following report:—That in pursuance of notice given, the exhibition was held at the time and place mentioned. The exhibition of animals, in con-

sequence of the extreme drought and dusty condition of the roads, was not numerous, but generally of excellent quality.

A very respectable number of horses of the different breeds, were on the ground. Many of them were high bred, and others displayed excellent qualifications for coach and road horses; and some cross breeds, well adapted to the use of the farmer.

The display of Durham cattle was more limited than on former occasions; but their quality, size, and beautiful appearance, attracted the notice of visitors, and it must be acknowledged by all, that they are entitled to a great share of credit, for the interest manifest on the occasion.

The Devons were well represented, and their appearance attractive. There was a few Ayrshires and Alderneys of good quality, and some cows and heifers of mixed and native breeds. Also some good calves, the progeny of the above. Showing that a laudable spirit still exists among farmers, for the improvement of stock, according to their preference for any particular variety.

With regret the committee are obliged to state, that but one pair of working oxen was to be seen on the ground; they were of fine size, superior form and quality, and perfectly tractable, and were attached to a cart containing a variety of farm products. Your committee would recommend to farmers the more general use of those valuable animals, as being more economical than horses, and for many purposes more convenient and efficient.

But few sheep were on the show ground; they were mostly of Southdown and Leicester blood, of the best quality, and attracted much notice.

There was a good collection of swine, and their appearance creditable; they consisted generally of the Chester county breed, and their crosses, some of the mixed, Hampshire, Lincoln, and Berkshires, were of good quality.

The exhibition of poultry was more numerous and various than on any former occasion, and evinced an increasing spirit of emulation among their breeders.

Samples of fresh butter of superior flavor were produced; and also a jar of salted butter of excellent quality, the first of the kind exhibited before the Society.

The display of machinery and farming utensils was large and very interesting; showing that our ingenious mechanics are untiring in their efforts to accomplish a reduction of the labour and expenses of cultivation.

Some good samples of different varieties of wheat, oats, corn in the ear, &c., were to be seen; but the display of roots, the committee regret to state, was very deficient in quantity, and they would beg leave to recommend their more general cultivation by farmers for the use of their stock in the winter season.

Your committee having obtained and prepared some ground for ploughing, by staking off the proper allotments for each competitor, the trial of ploughs and ploughing took place on the second day of the exhibition. The ground, from the long drought, was rendered so hard, that any attempt of the ploughman to force his way through it seemed almost hopeless, but as farmers always have shown good courage on the field, a determination was manifested to make the attempt, and contrary to the expectations of most present, the work was done in a reasonable time, and in a manner that displayed to the large concourse of people the great skill of the ploughmen, and the superior quality of the ploughs entered for competition.

It was pleasing to notice competitors from the neighbouring counties, and some from the State of Delaware, who had honoured the Society with their presence on former occasions.

In a short time after returning from the plough field, the different committees having prepared their reports, a large concourse of persons assembled around the stand on the show ground, where the chairman of your committee announced the premiums awarded to the successful competitors.

Excellent dinners were provided by Mr. Hamill, on both days of the meeting, and the Society was honoured by the presence of many distinguished guests, among whom were H. B. M. Consul at Philadelphia, Mr. Peter, Hon. Charles B. Calvert, Col. H. Capron, Col. W. W. W. Bowie, Dr. Thomas, and Mr. Woodward, of Maryland, Bryan Jackson, Esq., of Delaware, and John Gill and David Whitall, Esqrs., of New Jersey. Some excellent speeches were made by Mr. Peter, Col. Bowie, and others.

The plan adopted on the present occasion, of disposing of animals by private, instead of public sale, proved highly successful. Many sales were made at fair prices. This circumstance will offer inducements to many farmers to bring out their best stock for exhibition and for sale; and a fair or market may be established that will bring persons from a distance, and prove to be most convenient and advantageous to all parties.

The committee are happy in stating that the exhibition throughout was conducted in the most orderly manner, and passed off in such a way as to be highly creditable to the

Society; and they feel assured, that with a harmonious combination of the members, and a determination to come out on future occasions with all their force, their exhibitions will be rendered highly useful and attractive.

Algernon S. Roberts, *Chairman.*
Aaron Clement, *Rec. Sec'y.*

Philadelphia, October 7th, 1846.

The Potatoe Disease.

The following very curious article we take from the *Berwick Advertiser* of 8th of Eighth month last, which was kindly handed us by a friend, who is personally acquainted with W. Whitehouse, the writer, and says his statements may certainly be relied on. It behoves every one to throw all the light he can upon the disease, and its remedies, that is so widely and seriously affecting the Irish potatoe. Wherever it can be done, we would advise the farmer to lime his potatoe ground. For many years, while on a farm, the editor never failed to have a good crop of potatoes on ground which he had limed: he uniformly believed that lime was especially favourable to that root. This, however, was before the appearance of the *potatoe disease.* Instead of tracing the cause of this malady to a particularly wet season, or particularly dry season, or hot season, we apprehend—like epidemics among ourselves and our cattle—it must be attributed to circumstances which have hitherto entirely eluded our perceptions. There may, however, be an antidote. Let us seek it industriously, by experiment and observation. Lime your potatoe ground.—Ed.

To the Editor of the Berwick Advertiser:

Sir,—Allow me to lay before you a statement respecting an experiment which I made last year, and am following up this summer, as a probable means of renovating and improving the qualities of our second necessary of life, potatoes—which have been degenerating for several years back.

Aware that many garden shrubs and herbaceous plants have their qualities maintained and improved, by propagating them by *cuttings* of the stems, rather than by dividing the roots or by seed; in the latter end of June, 1845, I planted, in a good light soil, *without manure*, cuttings of the green stalks of early potatoes. I scarcely cherished a hope that they would produce tubers; yet in autumn I found a crop—some of them the size of boys' playing marbles, and most of them from two to four times that size.

These were planted the 23rd of last February; and now, removing the soil from part of a root, the first and only one that I inspected is full larger, and of finer appearance, than those growing in the same ground and planted with tubers of the same sort.

The cuttings were the tops of the stalks, four or five joints from the top, and cut *close under* the joint with a very sharp penknife, and with a quick, clean, sloping cut. All the long leaves were clipped off, and such of the buds of the stalks as were growing into leaves, shortened a little, except the top buds—taking particular care not to do this so close as to pinch the bud off, or bruise the stalk—as it is out of these buds that the young tubers grow.

They were planted in a sunny aspect, and shaded, and watered every evening in dry weather, for two or three weeks, until they began to grow.

This summer I am planting about half, or two-thirds of the whole stalks; laying them nearly horizontally, under two or three inches of soil, with the top buds only above ground. The seed will no doubt be more abundant in this length of stalk and horizontal position. I am planting them in portions of ground the size of onion beds, laying a row of plants three inches asunder the whole breadth of the bed, and another row directly opposite, with the top buds of both rows meeting each other. In this way they will need little shade, and will be easily weeded and watered. As it is rather difficult to furnish shade, I plant some behind any large culinary herbs; and even behind, and between, ridges of growing potatoes. The broad leaves of the former, and the luxuriant stalks of the latter, are a sufficient shade. But these growing potatoes, or herbs, are such as will be dug up in the course of three weeks, as this new crop must have sun to mature it. Latterly I find that by bringing the top buds very near together, they need *no shade* except a few stalks and leaves thrown over them, of those weeds, herbs, or cuttings of leafy shrubs, on which earwigs and reptiles do not lodge, so that there is no expense, and little trouble attending this attempt to improve potatoe seed.

The cuttings should be taken from healthy plants and planted without manure in ground that has not been recently set with potatoes.

I now find young sets growing upon stalks of early potatoes which I planted only three weeks ago. It is, therefore, not *too late* to plant cuttings of second earlies and the later sorts. I also find that the small stalks produce as well as the thick stalks; so that those who would hesitate to cut the main stalks of their growing crops for this purpose, might succeed by using the small ones. It may be advisable to cover the crop with an addition of light soil, and leave it in the ground until setting time next spring.

This method of endeavouring to improve the potatoe will be more expeditious than that of doing it by the seed of the potatoe-

apple—although that should be persevered in, to obtain varieties—and the produce could be always depended upon to be the *same sorts* as those from which the cuttings were taken.

If landed proprietors and Horticultural Societies would encourage this mode, and if farmers, nurserymen, market-gardeners, and every cottager who has a few yards of spare fresh ground, would immediately practice it, I believe that in two or three years—through the blessing of Heaven, ever ready to second man's instrumentality,—the whole of the united kingdom would have more abundant crops of this nutritious root, much improved in quality, and the different sorts distinctly classified. It is also highly probable that if cuttings of these new plantations were, from year to year planted in fresh ground, the plague of this mysterious disease might be entirely eradicated. I am planting cuttings of the stalks of those growing from the result of my last year's experiment, and expect that the offspring will be superfine.

W. WHITEHOUSE.

Spittal, Berwick-on-Tweed,
July 29th, 1846.

Strawberries.

Cincinnati appears truly to be in the region of this fruit. Her people luxuriate in them, and her gardeners understand their propagation. The Gazette of that city of the 27th of Fifth month last, gives the following description of an abundance, which makes us wish we "had been there to eat." The supply in our own market, however, was a liberal one, and prices reasonable. The general flavour, owing probably to the continued wet weather, was not so fine as usual.—ED.

"OUR market is well supplied with this delicious fruit. Probably one hundred bushels were on Fifth street yesterday. One man had thirty bushels, and several others ten and twelve each. The price ranges from five to twenty cents per quart; Hovey's Seedling selling quick, at the latter price, and one must rise betimes to get these at any price. It is a fact well illustrating the importance of raising *good* fruit only, while you are about it, that Hovey's Seedling strawberry is in greater demand here at twenty cents, than common kinds at five. One gentleman from Chillicothe paid $6 20 yesterday for a bushel of the seedling, and took them home, via the river, to show his friends what can be done in the strawberry line. There was hardly an imperfect berry in the lot; the size varying from four to five inches in circumference."

IT is said a plantation of the Alpine strawberry yields fruit the same season it is made.

For the Farmers' Cabinet.

Destructive Insects.

MR. EDITOR,—Though almost out of season, my promise made in your July No. must yet be fulfilled. Early in last month, a perfect insect one and a half inches long, with filliform antennæ half an inch long, colour the same as its head—beautiful brown—six ringed abdomen; short thorax, densely covered above and below with scales; black eyes; and four *rudimentary* wings—external pair brown, internal, ash coloured, made its appearance. From its inability to fly, it is probably the female of the canker worm of New England, adverted to and a plate given—much smaller than the natural size—by J. J. Thomas, in his late excellent "Fruit Culturist." For a more extended notice of its habits and modes of destruction, your readers may refer to the article, Span-Worm, in the American Farmers' Encyclopedia.

July 26th, I took a number of larvæ of the above soon after their first existence, and in six days they were all dead and changed in appearance. Their death was caused by the larvæ of another insect in their interior. In two weeks—August 9th—it emerged a most beautiful ichneumon fly: its length half inch; antennæ filliform black, and as long as its body; four anterior legs yellow and white, two posterior yellow, white, and black; rings of abdomen white and black alternately; wings membranous; colour changeable. They have a sting. It is gratifying to know that we have this beautiful little assistant to keep in check the ravages of those devastating loopers. If, however, these last hymenopteræ produce but one brood in a season, which is probable, then we must still be on the alert, as the loopers, or span-worms, appear at different periods in the season.

I have not yet succeeded in procuring the perfect insect of the second variety of caterpillar described. I am, however, convinced the two kinds are essentially different—the one spins a cocoon, the other descends into the earth. I have them now in their pupa state, spun in cocoon, and may succeed next season. Both kinds are rapidly increasing in this section. Let us then not be idle. You, Mr. Editor, may write and print, but how shall we get the great mass to read and act? Would that every owner of an apple tree would even effect as much as the little fly which I have attempted imperfectly to describe; then should we soon be divested of these destructive insects.

J. K. E.

Paradise, Pa., September 15th, 1846.

General Principles and Directions for Irrigation.

Some points respecting irrigation may be considered as well established, to which it is proper that I should refer. It is settled that simple water, without any admixture, is in itself a great enricher of the soil, or perhaps, more properly, a great promoter of vegetation. If the water of irrigation is charged with enriching matters in a state of solution, its beneficial effects are of course increased. Waters charged with mineral substances, such as water strongly impregnated with iron from peat bogs, or water from copper mines, is pernicious to vegetation, as any one may see, who will visit the outlets of the copper mines of Cornwall. It is established, likewise, that water in irrigation, in order to produce its best effects, must not be suffered to stagnate upon the land, but must pass in a steady progress over it; and that this progress should be comparatively gentle, and not sudden and rapid. It is equally well established, that lands which it is proposed to irrigate, should be thoroughly drained, so that the water poured upon the land should not be suffered to stand in the land, nor upon it. The effect of stagnant water upon the surface, or the complete saturation of the soil, is to change the nature of the herbage, and to produce those grasses, which are coarse or innutritious, in place of the finer, sweeter, and more healthful. Yet it is not the mere transition of the water over the surface that is to be sought. It is desirable to have it soak into the ground, but not to remain there. Its speedy transition over the surface is to be effected by the inclination of the land from where it is received to the trench, furrow, or ditch, by which it is to be carried off. Its passing into the ground, and finding a speedy passage off, is to be effected by a system of thorough draining and subsoiling; for if the subsoil is impervious, the irrigated field becomes converted into a marsh. One of the most eminent farmers in Scotland, whose hospitality I had the pleasure of enjoying, but whose death since that time is deeply to be lamented,—Mr. Oliver, of Lochend, near Edinburgh,—who had a large extent of meadow, irrigated by the sewerage water from the city, found that, after his fields were thorough drained, the benefit of the irrigation was greatly increased; for by the descent of the sewerage water into the soil, as well as over it, the enriching portions of the manure in a state of solution were carried to the roots of the plants. In the irrigated meadows of the Duke of Portland,—for its extent one of the most beautiful and finished agricultural improvements which can be found—he showed me, that portions of his irrigated lands, which had even been drained, continued to affect his sheep with the rot; and this evil was not remedied until the draining was carried to the depth of eight feet or more. Before that, without doubt, the stagnant water at the bottom prevented the water of irrigation from passing off, and may be said to have poisoned the whole ground.

In irrigation skilfully managed, the increase of product is often very great—twofold, fourfold, in many cases even fivefold. Even sands which were barren, have, by irrigation, been made productive. Plants, in such cases, having once found a footing, by the spread and decay of their own roots, have at length formed a soil, and created around themselves the elements of fertility. The effect of pure water, I have already said, is considerable; but when this water brings with it the refuse of the streets and habitations of a town in a state of solution, the effects, as we shall presently see, are most remarkable. I have seen it stated, that water issuing from a limestone soil, and strongly impregnated with lime in the form of a sulphate or other combination, has been employed with great success in irrigation. Such instances have not come under my observation; but I cannot doubt the effect, where the soil was of a nature to require that element. In respect to manures, or any of the constituents of plants, it is evident they can be taken up only in a state of the finest solution. Here homœpathy triumphs, and no human sense is acute enough to discern, no human scales are fine enough to measure, those infinitesimal atoms out of which the rough substance of the gnarled oak is formed.

It would be idle, in a work of this nature, to attempt to lay down any thing more than the general principles of irrigation. In the accomplishment of any particular work, all the localities are to be considered, and the effecting of it upon any large scale would require considerable engineering skill.

Irrigation of land and inundation are not the same. The inundation of land resembles what I have already described under the process of warping, where, the land being enclosed by embankments, the water is admitted to flood the land, and is held fast until its floating riches are deposited. This can seldom be done without disadvantage upon a growing crop, unless when in its earliest stages of growth. Irrigation is the gradual filtering and spreading of the water over the soil, and, where not too rapidly applied, may be done with safety at any period

of the crop. This, however, can only apply to pure water. The application of turbid water, where a considerable amount of mud and earthy matters is held in suspension, or the application of sewerage water to a growing crop, would be liable to the same objections as inundation. I am referring, as must be obvious, to fields in grass, to which irrigation is applied; and not to fields under arable culture, to which it may be, but to which I have never seen it applied. What are called *catch-meadows*, is a form of irrigation upon side hills, where the water, after passing over a certain portion of the land, is caught in a trench, and again used for the irrigation of other portions of land. In a plan of irrigation, the first thing to be considered is the command of an adequate supply of water, and this, of course, at a level above the land to be irrigated. This may be obtained from a brook, whose course may be turned, or a portion of whose waters may be diverted for that purpose; or, as it is here sometimes obtained, by the collection of the water of springs bursting out upon the high lands into a common receptacle or reservoir, which may be tapped for the purpose of letting out the water, as it may be required. I recollect at Canterbury, in New Hampshire, at the establishment of the United Brethren—certainly among the best farmers in the world—that these industrious people, for the sake of establishing a mill power, much needed among them, had, by an embankment or dam between two high clay hills, formed a large basin or reservoir, which the melting of the snows in the spring, the rains, and some springs on the sides of these hills, would completely fill with water, furnishing a supply for the season; and which, passing into successive basins as it descended the hill, was used five times for mill purposes; such as a flouring mill, a threshing mill, a mill for sawing wood, a mill for grinding bark, and a mill for the dressing of leather. I could not help admiring the ingenuity of these people in creating a mill power where none existed before; and it is perfectly plain that, by such an arrangement, they might have executed an extensive system of irrigation, had it been thought proper so to apply the water. In some situations, where fuel and labour are not expensive, steam power might be employed with advantage to force water and to form a reservoir at the height necessary for irrigating the land below. On a farm in Dedham, Massachusetts, situated upon an acclivity, at the foot of which ran a small brook, I saw that the farmer had formed a reservoir above his house and barn. Into this reservoir, through leaden pipes of a small bore, the water of the brook was forced up, by means of an hydraulic ram and forcing pump, itself operated by the running brook; and a supply of water was always maintained in the reservoir amply sufficient for the domestic purposes of the family, and the supply of the cattle in the yard. The water was forced a considerable distance, and the expense of the machinery was very trifling. The cost and labour of keeping it in operation were nothing, excepting that of opening and shutting the gate. The expense of the whole apparatus, excepting the reservoir, did not exceed five pounds, or twenty-five dollars. The farm would, in England, be considered a very small one, not exceeding one hundred acres; but it shows, just as much as a larger one, to what advantage the most simple contrivances may be applied. This water, thus raised, might have been used for the purposes of irrigation.

Where the supply of water is sufficient, it is carried along on the upper margin of the land to be drained in a trench or furrow; and when it is required to throw the water over the land, the end of this trench or furrow is to be stopped, either by a gate or a damming up for the occasion, so that the water entering it may flow gently and evenly over its sides. It is plain that the water trench or furrow should be carried nearly upon a level; first, that the flowing of the water over the sides of the furrow or gutter may be equal and uniform; and next, because any variation from a level would force the water to a particular point, either to prevent its equal diffusion over the field, or to occasion, perhaps, a rupture of the side of the trench, and an injury to the field itself. The variation from a level, recommended by some persons with a view to giving the water an easy flow in the trench or gutter, is only one inch fall in every ten feet.

Besides the formation of the trench or furrow, the surface to be irrigated requires to be made even, the knolls reduced, the hollow places filled, and the holes, occasioned by vermin of any kind, stopped, that the water may flow evenly over the whole. The degree of inclination desirable in a field to be irrigated, is stated to be about ten feet in ninety; but although this may be found desirable, it is obvious that it cannot be under the control of the farmer to any considerable extent, but at a very great expense. We must take the land as we find it; for few things are more costly than attempts materially, or to any great extent, to alter its shape. It would be prejudicial to undertake to irrigate our lands without

the means of getting rid of the water, and without having a gradual, though not a rapid, transmission of the water over the surface; but in cases where the inclination is too great, the supply must be more gradually rendered.

The frequency with which water may be applied to meadows, and the length of time which it may be suffered to remain on them, are points to be considered. At Welbeck, at the Duke of Portland's, after the prepared land was sown with grass seeds, the water was brought upon them as soon as it was thought they would bear it; i. e., after they had become sufficiently rooted, and the ground consolidated around them. This would vary, according to the season, from one month to six. The great danger to be apprehended upon newly-sown lands is the washing away the dirt from their roots. The duke himself remarks that, "short of that, they cannot be watered too soon, or too long at a time, unless the land has very recently been drained, in which case it would not be well to increase the natural strength of the springs until the land had forgotten its wet propensities. On really dry land there are only two limits to the length of irrigation, viz., the want of water, and the want of consistency in the soil, so that it shall not be washed away from the roots of the grass."

After the grass had become sufficiently strong, the water was kept going over it for about four days, and then taken off. The grass was mown as soon as it was ready for the scythe, and the water again turned over. The same course was pursued upon the old grass land. About once a month, the water is turned on for three or four days at a time, according to the supply, and this throughout the year. When the water is abundant, it is applied oftener than once a month; but how long it should be kept on, is somewhat matter of judgment in reference to the weather and the state of the ground. The manager of the works chooses to keep it on until he sees its effects upon the grass.

Lord Hatherton, on his meadows at Teddesley Park, informs me, that they commence irrigation about the 1st of November, and the water remains three or four days on the land. If the supply is sufficient, it should be renewed once a fortnight. In a dry season, it is advisable to apply it immediately after cutting the grass; but it must not then be allowed to remain many hours in the same place, especially if the sun is powerful.

Mr. Oliver, at Lochend, where the sewerage water of the city was used, deemed it unsafe to apply the irrigation immediately after the cutting of the grass, but considered it altogether advisable to wait until the grass had acquired some growth. The sewerage water, in this case, was of great strength, and a different rule was applicable from a case where the water of irrigation was pure.

Mr. Roals, who farms some cold land one thousand feet above the level of the sea, in Somersetshire, and who has improved a considerable tract by irrigation, says, that "the water should never be suffered to remain in one place over the grass more than two or three days at a time without being changed; nor be turned upon the land in order to remain there during frost; but should the frost set in while the water is on, by no means alter it until the frost is gone; for if the surface is exposed, and the frost continues, it will most likely lift the land and kill the grass."

These observations will have peculiar value in New England, where the frosts are severe, and where grass lands, upon which water stands in the winter, or lands upon which grain has been sown in the autumn, if particularly wet, are sure to suffer most severely from freezing.

I have already spoken of the quality of the water used for irrigation. At Lord Hatherton's, it is the water gathered from the different drains, in different parts of the farm, whose position was such that their supplies could be turned to this purpose. At the Duke of Portland's, a small river, called the Maun, running through the neighbouring town of Mansfield, supplies the water of irrigation. After strong rains, when the washings of the streets and sewers of this town are poured into the river, its waters become quite turbid, and have a superior efficacy. The sediment deposited by a single watering, in such cases, is very observable. I shall presently speak more at large of the application of sewerage water.

"In the management of the crops of grass upon irrigated meadows," says one whose practical knowledge of the subject allows him to speak with authority, "experience has shown that to let the grass grow to be too old, viz., until the seed of it is in a forward state, is productive of very great injury to the land. When the grass has been cut for hay in this state, and brown at bottom, the land does not recover for a great length of time. It is also found very desirable, after beginning any meadow, or portion of a meadow, which receives the water from one carrier, and at one time, that the consumption of it in a green state should be carried on as quickly as possible, so that in dry weather the water may not be kept off of it too long; for in that case it requires so

much water before the land is saturated, and will allow the water to flow evenly over it, that much loss of time occurs in the next crop of grass."

I have thus touched upon the principal points connected with this great agricultural improvement, though there are some others to which I shall recur before I quit the subject; and I now proceed to speak of some principal experiments, which have come particularly under my observation.—*Colman's Tour.*

Newcastle County Agricultural Society.

This Society held its Annual Exhibition on Wednesday, the 16th ult., on the farm of Major John Andrews. At an early hour in the morning, the farmers from all parts of the county, accompanied, many of them, with their families, flocked to the city, and by nine o'clock the streets presented an animated and exciting appearance. At the time specified, the procession formed at Mr. John Hall's Hotel, and proceeded to the ground. The procession reached from the Bridge to Fourth street, consisting of about one hundred and fifty horsemen, and fifty carriages. On arriving at the ground, the President, Mr. James Canby, organized the meeting.

Dr. Kennady addressed the audience in an eloquent manner; we presume the oration will be published, and we will not anticipate its appearance by any remarks of a general character. Previous to leaving the stand, the president read the report of the committee on gardens, and awarded the premium to William Rittenhouse, gardener to Samuel Richardson, of Christiana Hundred. Nathaniel Settens was favourably noticed. Mr. Foote addressed these gentlemen, complimenting them on their industry and admirable success. The company then adjourned to the cold collation, in a farm-house near by, which was attended to by Col. Glazier, Mr. Boies, and several other gentlemen, who volunteered their attentions.

The ground on which the cattle were exhibited, was immediately in the rear of Major Andrews residence, commanding a distant, but beautiful view of Wilmington and the surrounding country. The number of cattle was not as large as was expected; we obtained as complete a list as possible—many of the pens were not marked, and the names of the owners could not be obtained. The display of agricultural implements was also small, and many were disappointed to find Hussey's Reaping Machine was not on the ground.

The committee on crops reported but little competition for the premium. Their report stated that the wheat crop has fallen short in the State this year, about twenty per cent., and corn in the same proportion. The potatoe crop was also noticed, which is very poor, owing to the rot. Bryan Jackson received a premium for raising three tons of hay on an acre of ground.

The number of people at the exhibition throughout the day, was very large—at one time it was supposed nearly five thousand people were present. The road to this city was lined with vehicles of every description, and presented a very lively appearance.

The Horticultural and Mechanical Exhibition in the City Hall, was crowded with visitors presenting a scene of beauty seldom excelled. The arrangements were perfect, and the committees did everything to render a visit pleasant and agreeable.—*Delaware Journal.*

Report of the Committee on Ploughing at the Newcastle County Agricultural Society.

At two o'clock, the exhibition grounds were deserted for the ploughing field, where the ploughmen had already resorted, and were busily engaged in different parts of the field, followed by crowds of their friends, in trying their ploughs, regulating their set, and in practising their teams.

At half-past two, they were called up to make their entries and draw for lands, ready for a start. The immense crowd of spectators in carriages, on horseback and on foot, took position on the four sides of the grounds laid out for ploughing, embracing six or eight acres, and forming an amphitheatre or hollow square.

There were fifteen entries, as follows:—E. A. Collins, Wiley Plough, land No. 1. Richard Carter, Prouty Plough, No. 5½, land No. 2. John Hollingsworth, Moore Plough, No. 8, land No. 3. Francis Sawdon, Moore's Plough, No. 8, land No. 4. George Lofman, Moore's Plough, No. 8, land No. 5. David T. Morgan, Moore's Plough, land No. 6. John Newlove, Prouty Plough, No. 5, land No. 7. William Neville, Beach's Concave Plough, No. 11, land No. 8. George Piper, Beach's Plough, No. 11, land No. 9. James N. Cleland, Moore's plough, No. 8, land No. 10. William Banks, Prouty Plough, No. 5½, land No. 11. John Everson, Moore Plough, No. 8, land No. 12. Thomas Truitt, Prouty Plough, land No. 13. Robert Fountain, Moore Plough, No. 7, land No. 14. Charles Carter, Moore Plough, No. 7, land No. 15.

Each ploughman first struck out his own land as it had been previously staked, by going one round; and here it was that the great skill of our ploughmen in running straight lines, exhibited itself—never did Paul Hoover line a bee to a hive straighter than they went to the opposite stakes; and without flattery, and with truth, it may be said, that the compass itself would in reference to many of the furrows drawn, have indicated no deviation from an entire straight line.

The fifteen teams now came up abreast, and every ploughman had his position, ready for the word "go." The committee may here state, that the ground selected for the match, was such as was calculated to tax to the greatest possible extent, the skill and perseverance of the ploughmen. So far from being a smooth green sod, which is generally selected, the ground was covered with a heavy matted crop of clover, blue grass, and fox tail, and in addition to all this a straggling crop of tall weeds.

It was a clay soil, and for the most part very tenacious, and rendered particularly hard and compact by the drought of the season. The first round seemed to have satisfied the ploughmen of what they had to do: few seemed sanguine, and none apparently confident of the result, though among the entries were no less than four first premium men, the successful candidates on other fields. Indeed there was an anxiety felt by some of the ploughmen, and a doubt expressed, as to whether they would be able to overcome the obstacles that opposed them, so far as to make the performance even creditable in the eyes of the thousands that beheld them, and who could only judge superficially of the difficulties with which they had to contend. The committee, for these reasons, permitted the use of chains to the ploughs, and also allowed to each a cleaner. At the word given they got under way. The teams were so well trained that the heavy draft offered no opposition to a fair pace. There was no halting or pausing, but furrow after furrow was rolled up, each as true and perfect as the last, or if marred in the slightest, from any cause, the comments of the spectators soon announced the fact in tones even audible to the ears of the ploughman himself. But the remarks were all generally in a friendly and encouraging spirit, and indeed it was not a little interesting to hear the comments that greeted the ploughman as he each time came out, as "That is well done," "You are doing well—stick to it," "Keep cool," &c.

The ploughman himself with every nerve braced, a strong arm, a quick and ready eye, apparently unconscious of every thing around him, directed his plough with his utmost skill—at most a furtive glance, as he turned at the end, down the ribboned furrow he had just cut, was the only instant he was attracted from his task, and as if gathering from the view, hope to encourage him to greater efforts. Again he would push down his land apparently watching his plough and coaxing his team with a "Wha, padder, Wha," for an effort that should surpass the last.

But now all is accomplished but the last furrow, the cleaning out furrow, the great test of the ploughman's skill—all, however well done, may be marred in an instant by the slightest balk here. The spectators crowd up—the voices of friends are heard encouraging to coolness and to take time but the good ploughman has already half anticipated his task; but a single narrow stripe, not varying one half inch in width the whole distance, is all that remains—his Plough is pitched, and the completely inverted sod is upturned, leaving the land with the appearance of having been handsomely *divided* not ditched or gullied, but neatly separated by the furrow and giving to the whole a beautiful and perfect finish.

Such certainly was the performance, and such the result on most of the lands ploughed at this match.

It was this description of ploughing, that the committee were called on to judge and to decide upon—to decide as to the relative merits of each performance. The task was by no means easy. That they might secure for their award on the part of all, the concession of perfect impartiality, the committee designated three of their number to act as a sub-committee and to retire from the ground, and not to come upon it, until after the ploughing was completed. They were Washington E. Moore, Francis Sawdon and John Smith. Without knowing who ploughed the particular lands, but called on to examine the fifteen that had been ploughed, and to designate the four best among them, these members of the committee, after the most careful examination, and taking the merits and defects of each into account so far as their judgment and experience would enable them to do so, came to the conclusion that was announced on the ground, namely, that John Newlove was entitled to the first premium, William Banks to the second, John Everson to the third, and Thomas Truitt to the fourth.

There were several other lands that were remarkably well ploughed. The committee would not designate except in one instance, and they do this to point out on the part of

the individual a merit deserving special notice, namely, that of receiving and abiding, without murmur or complaint, the decision of the committee appointed to judge and decide between the competitors. None doubted that Robert Fountain's land was ploughed well; he had made a most spirited, and as some probably thought, a successful effort for one of the premiums. But the committee decided otherwise, and with this decision Robert Fountain was the first to express his entire satisfaction, and to congratulate his successful rivals. The grace of acknowleding a defeat may equal the glory of winning a victory. The committee would point out this example as worthy of imitation on all future occasions. Let the opinions of the committee be respected as the just and impartial judgment of those called to decide.

The committee deem it but justice to one other of the competitors for the premiums, to name the peculiarly embarrassing circumstances under which he carried on the contest. The ground ploughed extended across from one slight hill to another. The land in the centre of the valley, being land No. 10, was drawn by James N. Cleland. The great growth upon it of grass and tall weeds was obvious to the eye, but this held out no terror to so good a ploughman as Mr. Cleland. It was not till he entered upon it and discovered from the wash, &c., not only a variety of soil, but from the water that must at times have lain upon it, that it turned up in many places in very large clods or flakes of earth, that Mr. Cleland fully contemplated all the difficulties he had to contend with. Mr. Cleland, as having been the successful candidate last season, and having borne off the Society's first premium, was looked to as one whose reputation was established, and from whom the most finished work might be expected. But he soon saw that both his skill and strength would be taxed to the utmost to perform any thing even respectable, and not to allow the general appearance of the field to be marred by a rough and unsightly land. His efforts to this end—for the credit of the field—aided by his fine and well trained and powerful team, were so far successful as to make his work quite respectable, and that is the most that can be said of it, and which is indeed high praise, considering what he had to contend with.

The committee congratulate all the ploughmen on the result of the match: they congratulate them and thank them for the interest they contributed to the day, and they conclude in the language of the beautiful Ode written for the occasion,

"God bless Columbia's yeomanry,
And give them happy homes."

A second match came off between the boys. There were five entries, namely: George Jackson, George Grebby, Thomas Jackson, John C. Clark, Jr., and Henry Bird. The premiums were taken by the four first named, in the order they are given—three of them using the Prouty plough and one the Wiley. The ground was so very hard that it taxed the strength of our young friends severely, still they stuck to their work and persevered to the end. It was surprising almost that they could plough there at all, but they did plough, and some of them made highly respectable ploughing, and nothing could exceed the emulation they evinced to excel.

The influence of all this upon their future character cannot but be highly beneficial.

JOHN C. CLARK, *Chairman.*

BRYAN JACKSON,
JOHN W. ANDREWS,
WASHINGTON E. MOORE,
FRANCIS SAWDON,
JOHN SMITH,
Committee.

Sept. 17th, 1846.

To have Good Vinegar.

THE cowherds on the Alps and in several parts of France use milk whey to make the sharpest vinegar, and they also extract from it a salt called in pharmacy sugar of milk, which the Swiss doctors consider as the best detergent to purify the blood and cure radically the most inveterate cutaneous complaints. The method they use to prepare this salt is this: after having separated all the caseous and oily parts, the whey is clarified and boiled until reduced to one-fourth part of the whole, which they deposit in wooden or earthen pans in a cool place. In a short time the saccharine particles are crystallized, the phlegmatic part is then decanted slowly and the sugar is dried upon pieces of grey paper. This operation may be accelerated by boiling out the whey entirely, but the sugar which remains at the bottom of the kettle is coloured and unfit for pharmaceutical purposes: it might, however, answer well for veterinary uses.

The process for making vinegar out of milk is very simple. After having clarified the whey, it is poured into casks with some aromatic plants or elder blossoms, as it suits the fancy, and exposed in open air to the sun, where it soon acquires an uncommon degree of acidity.

The Russians and Tartars make with the whey of their mares' milk a strong and in-

toxicating liquor, which they call Koumis, and also vinegar, by suffering that substance to pass from the vinous to the acetous fermentation.—*Transactions of the Society of Arts, N. Y.*

Good vinegar is one of the necessary luxuries of the table, and with a little care it is always attainable by those who have apple orchards and cider of their own, and ought to be more generally supplied in our market than it is. When once a cask of *good* vinegar is procured, there need be no difficulty in keeping it filled with that of the same quality. The farmer should put away his good strong cider in substantial casks under cover, with the bung hole open to admit the air, and let it gradually undergo the necessary fermentation. If the casks are frequently shaken, and their contents occasionally drawn from one to another, the process is hastened. Mix nothing with it; let it be the pure cider. Draw from the hogshead to a barrel, and from the barrel to a five gallon keg, and from that again for the table. It is thus kept stirred, and comes in contact with the oxygen of the atmosphere, which will the more speedily *sharpen* it. Keep filling the hogshead with strong, sound cider, as you draw from it to fill the barrel, and the housewife need never spoil her pickles, nor mine host his cabbage, for lack of good vinegar.—Ed.

Elihu Burritt in England.

This individual, so well known as the *learned blacksmith*, is now we hope, enjoying all the gratification anticipated in the following annunciation made some time previously to his embarkation. Who shall estimate the influence of such a man, in throwing abroad his *Olive leaves* along the hedge rows, among the hayricks and turnip fields of Old England! Millions of the middle classes whose arms are brawny as his own, may have afresh opened to them—and that without the aid of his Hebrew, his Sanscrit, or his Norwegian,—in the powerful language of his powerful mind, a glimmering of the blessings in store for them in the proper pursuit of their own high calling.—Ed.

"About the first of June, we propose, under certain conditions, to take the steamer or packet for England. On our arrival, we propose to take a private hickory staff and travel on, like Bunyan's pilgrim, through the country, at the rate of about ten miles a day,

"'With a pocket for my wheat, and a pocket for my rye,
And a jug of water by my side to drink when I am dry.'

Passing thus leisurely on foot through the agricultural districts, we anticipate the opportunity of looking through the hedges and into barn-yards; sometimes into the kitchens of the common people, once in a while into a blacksmith's shop to smite at the anvil. In fact, we intend to pull at every latchstring that we find outside the door or gate, and study the physiology of turnips, hayricks, cabbages, hops, &c., and of all kinds of cattle, sheep, and swine. We propose to avoid the *lions* of the country, and confine our *walks* to the low lands of common life; and to have our conversation and communion chiefly with the labouring classes. Perhaps we might get together a knot of them some moonshiny night and talk to them a little on temperance, peace, and universal brotherhood. During such a pedestrian tour, we think we might see and hear some things which a person could not do while whizzing through the country on the railroad at the rate of thirty miles an hour."

THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

PHILADELPHIA, TENTH MONTH, 1846.

Our Philadelphia Agricultural Society, agreeably to public notice, held its annual Exhibition of stock, &c. at the *Rising Sun* tavern, on the Germantown road, on the 30th ult., and the ploughing match on the following day. Those who could *see* and *feel* their way through the dust, as many hundreds did, were richly rewarded for their perseverance, by the fine display of choice animals on the ground. These were perhaps not quite so numerous as on some former occasions, but their appearance indicated great care and judgment, as well as success in the production of beautiful animals. The Durhams, the Devons, the Alderneys, the Ayrshires, and the Natives, were there to testify for themselves: and the breeders of this vicinity, who produced them, are not the men to allow them to make a weak report. Some of the horses would do credit to any part of the Union, and the sheep and hogs on the ground, would compensate in appearance and quality, for what was lacking in number. They would add respectability to any Exhibition in the world. The productions of the garden, the field and the orchard, were really luxuriant, and sufficient to satisfy the wishes of the cultivator; our agricultural implement makers were on the ground and made an exceedingly interesting display of their wares. It was particularly gratifying to witness the excellent, and apparently perfect workmanship of many of the articles. They were not however made purposely for the show, but only in the ordinary manner. They could not fail to tempt the farmer to do his work well, and he who wishes first rate implements has only to apply to our friends of this city whose advertisements will be found in this paper.

The society dined together at three o'clock on the 30th; an excellent dinner was honestly discussed, and good feeling, enlivened by enthusiasm in their honorable calling, made it an occasion for the sparkling of wit, and much good speaking.

The Long Island Horticultural Society had quite a spirited exhibition at Flushing, about the middle of last month, and awarded numerous premiums. Wm. R. Prince and Co. sent from their garden and nurseries, more than fifty varieties each, of apples and peaches, and upwards of sixty varieties of pears, besides flowers in abundance.

A very serious disease has within a few weeks, appeared among the horses in the vicinity of New York. It was for a time pretty much confined to King's Co., on Long Island, but subsequently extended to Flushing and Staten Island. From a letter dated at Bergen Point, N. J. the 19th ult., we learn that it had reached that neighborhood. A friend from Salem, in the lower part of Jersey, informed the Editor, some three weeks since, that a number of horses had been seized with this distemper in that county, and that it had proved alarmingly fatal. Its seat is doubtless in the head. In a case on Staten Island, relief was produced when a copious discharge was obtained from the head of very offensive matter. The brain, on dissection, has appeared like a mass of clotted blood, and it has been suggested, that immediately on discovering the attack, the first symptom of which is indicated by a peculiar drooping of the animal, the forehead should be shaved between the eyes, and a powerful blister applied. Let this be accompanied by steaming with vinegar and hot oats—moderately bleeding, and relieving the costiveness always attendant upon the disease, if it even be by resort to the mechanical process of *raking*. Our friend from Salem, called it the blind staggers, and believed it was occasioned by some deleterious substance procured in the pasture, and would strongly advise the stabling of horses, without letting them run in the field. It is not believed to be contagious, as instances have occurred where horses have died, while others standing by their side, have escaped. It was recently stated by a member of the Farmers' Club in New York, that he had known a similar epidemic in Spain, and that cures had been effected by wrapping the head in blankets steeped in hot water, and following it up by copious bleeding. A committee was appointed by the Club to investigate the matter, and ascertain the remedies, if any really effective, had been discovered.

A handsome display of fruits, flowers, vegetables, &c., was made at the rooms of the New Jersey Horticultural Society, in Princeton, at its annual meeting on the 23rd, 24th and 25th of last month. The fruit was splendid, and the attendance, such as manifested a lively interest in the concerns of the Society.

Occasion was taken four months ago to mention the excellent location for an Agricultural School, offered by a property which lately belonged to the estate of W. G. Rogers, dec'd, and which had been purchased by our enterprising friend James Gowen. It is adjoining his homestead at Germantown, and seems admirably adapted for such a purpose. James Gowen, we have understood, has it in contemplation to open such an establishment, should his health admit of it. We cannot but believe the South and Southwest might derive lasting benefits from a school of this character in this vicinity. We heartily wish the enterprise may be prosecuted, and with all success.

Cattle are sometimes choked with an apple or potatoe. A friend lately informed the Editor, that a cow of his, was this summer greatly distressed by getting an apple in her gullet, and which, with all his efforts he was unable to remove either upwards or downwards. As a last resort, thinking she must die, he placed the part of the throat where the apple lay, over a solid block, and with a blow of a mallet, mashed it. She swallowed the broken fruit, and was instantly relieved. Considerable swelling and inflammation of the parts, naturally followed, but with proper care, he had no doubt, she would entirely recover.

Our friend C. W. Haywood, of Germantown, left at this office a few days ago, an ear of last year's corn, many of the grains of which, had been curiously perforated, and a good deal of the inside eaten, as we often see the pea eaten in the spring of the year, by a worm or moth. The corn was lying in bulk in the ear, in the garret, and some five or six weeks since, numberless moths were observed on the wing, and it was soon discovered that they had made their escape from the grains of corn. It is of course, much injured; and should the insect spread itself widely over the country, it is impossible to estimate the amount of injury which it is capable of inflicting.

The Editor very well remembers something of the kind that attacked the corn in the ear in the crib, some five and twenty, or thirty years ago, particularly in the lower part of West Jersey. Is the moth we now speak of similar in character and habits, to that which appeared a quarter of a century ago, and which then excited a good deal of alarm? If our memory is not in fault, it did not continue more than two or three seasons. Who can tell us all about it? C. W. Haywood said he had upon enquiry, not been able to hear of it among his neighbors.

William R. Prince, proprietor of the Linnæan Botanic Garden and Nurseries at Flushing, and author of the Treatises on Horticulture, on Fruits and on the Vine, has lately published a Manual of Roses, comprising the most complete History of the Rose, including every class, and all the most admirable varieties that have appeared in Europe and America, together with ample information on their culture and propagation.

We have received a copy of the work,—a neat duodecimo—and have no doubt the lover of the Rose will find in it, as expressed in the title page, every thing almost, which it may be desirable to learn, regarding its cultivation and management.

"During the last ten years" says the preface, "the acquisitions made to the family of Roses, have been so remarkable for their splendor, fragrance and other qualities, that the public attention has been awakened to their culture in a degree, almost unprecedented in the annals of Flori culture," and those who most participate in this awakened interest, will most need and enjoy such a manual as is now offered to them. Our fellow-townsman, Robert Buist, so well known among us for his enterprise and good taste as a florist, it will be recollected, also published a couple of years ago, an excellent *Rose Manual*, which is widely circulated among amateurs.

The publishers—Harper and Brethers, New York, have forwarded a beautiful octavo volume, "The Trees of America, Native and Foreign, Pictorially and Botanically delineated, and scientifically and popularly described; being considered principally with reference to their Geography and History; soil and situation; propagation and culture; accidents and diseases; properties and uses; economy in the arts; introduction into commerce; and their application in useful and ornamental plantations; illustrated by numerous engravings. By D. J. Browne, author of the Sylva Americana." They will accept our thanks, and allow us to congratulate the intelligent farmer, as well as the city and country gentleman, on this addition to our means of becoming more fully acquainted with the trees we have all our lives had around us, and with which we may have supposed we were already tolerably familiar. Who will ever tire in studying the forests of America!

A lot of new corn, the first of the season, was in the Baltimore market on the 23rd ultimo. It sold for 74 cts.

In a letter dated at Liskeard, in Cornwall, the 15th of Eighth mo. last, a friend remarks, "we are using at present some excellent American flour; the cost is about 30s. or $7 per barrel. The wheat crop here proves a very good one, and is nearly all secured. Barley and oats are thin, and the potatoes are even more defective than last year. The farmers are much discouraged about planting them again. Meat is from 6d. to 6½d. per lb., or 12 to 13 cents."

The seventh number of Colman's Tour has been received and distributed among our subscribers. It will be found of equal interest with any of those which precede it.

We are not able to perceive that the public good would be promoted by the publication of the letter from a "Friend to inventive genius"—W. S. of Baltimore. Had we thought otherwise, it should have appeared in this number.

The Exhibition of our Horticultural Society last month was a very splendid affair. Many thousands visited the rooms, and so far as we have learned, all were gratified, and, as it seems to us, must have come away with feelings mellowed, and more than ever enamoured with the endless variety of nature's beauties. One could hardly stroll around the tables—or, to give the idea more correctly—could hardly force oneself through the crowd, without being increasingly sensible of the richness of the gifts bestowed by a beneficent Creator in fruit, flower and vegetable. We cannot particularise either the articles or the contributors. The pages of a whole number of the Cabinet would barely suffice to do so.

A beautiful portrait of the late James Wadsworth, the great landed proprietor of Genese, with an interesting sketch of his life, will be found among other valuable matter, in the last number of the *Farmers' Library*. This number also contains a splendid engraving of R. L. Colt's Mansion at Patterson, N. J.

FOR SALE,

A BEAUTIFUL FARM,

Nearly adjoining the city of Annapolis, Maryland, containing 350 acres of land, naturally of good quality, and during the last four years, I have had it highly improved with clover, plaster, ashes, lime, and other manures to the amount of upwards of fifteen hundred dollars. The fences and buildings are all in good repair, and divided into ten departments, including one peach orchard, containing upwards of 1500 trees, in fine health of three summers' growth, and an apple orchard in full bearing. About 150 acres of this land are covered with the best sort of building timber.

I have a good wharf, where a large schooner can lie and receive or deliver produce. This farm is very pleasantly situated, high and dry, and about rolling enough to cast off extra rain water,—also has good spring water in several of the fields. The buildings consist of a good dwelling, nearly new, two brick servant houses, one house for the manager, two large tobacco houses, 30 by 70 feet each, one is used for a barn, stabling, corn, milk, and hen houses. From the above dwelling I can go to the Annapolis market in about fifteen minutes, where we have a tolerably good market for hay, peaches, sweet potatoes, milk and butter. Of milk about $2000 worth may be sold annually. Freight is cheap to Baltimore, which is an excellent market, with which we have daily intercourse, both by steam and otherwise. But few farms have the same opportunities of doing business to profit, being now in good order to make money, and only on account of advanced age, infirmities, and residing at a distance, am I induced to part with it. It will be sold cheap. Persons desirous of seeing the place, will please call on me, near Baltimore, Md., and I will go and show it.

ROBERT SINCLAIR, Nurseryman.

August 28th.—4t.

Agency for the Purchase & Sale of

IMPROVED BREEDS OF CATTLE & SHEEP.

The subscriber takes this method of informing his friends and the public, that he will attend to the purchase and sale of the improved breeds of cattle, sheep, swine, poultry, &c., for a reasonable commission. All letters post paid, addressed to him at Philadelphia, will be attended to without delay.

AARON CLEMENT.

Sept. 15th, 1846.

FRUIT AND ORNAMENTAL TREES, EVERGREENS, SHRUBBERY, &c.,

In great variety, for sale as heretofore, by the subscriber, at his Nursery, near Haddington, four miles west of Philadelphia. Orders sent by mail, or left at the office of the Farmers' Cabinet—where catalogues may be obtained—will be attended to, and the trees well packed when ordered to distant places. City gardeners supplied with trees suitable for the streets, at a liberal discount. SAMUEL RHOADS.

Tenth mo. 15th, 1846.

TREES FOR SALE.

The Subscriber has for sale at the Mount Laurel Nursery,—established by J. Needles—an extensive assortment of Apple, Pear, Peach, Plum, and Cherry Trees and Grape Vines. Also, a great variety of

ORNAMENTAL AND EVERGREEN TREES,

Which are of the best quality, and good size for transplanting. Orders left with Josiah Tatum, No. 50, N. Fourth street, will be punctually attended to, where catalogues may be procured.

EZRA STOKES.

Mount Laurel, near Moorestown, N. J.,
Eighth month 15th, 1846.

☞SHORT ADVERTISEMENTS,

The subject matter of which, may correspond with the agricultural character of this paper, will be inserted at the rate of one dollar for each insertion of ten lines or less; and so in proportion for each additional line. Payment in advance.

SEED STORE,

No. 23 Market Street, Philadelphia.

The subscriber keeps constantly a supply of White and Red Clover, and other grass seeds; fresh Perennial Rye-grass, and Lucerne seed. Field seeds, consisting of choice Spring Wheat, Barley, Potatoe Oats, Northern and other seed-corn. Aso, in season, Fruit and Shade Trees. Garden and Bird seeds generally. Guano in parcels to suit purchasers.

M. S. POWELL.

Philad., Feb., 1846. tf.

FOR SALE,

AT D. O. PROUTY'S

AGRICULTURAL WAREHOUSE,

No. 194½ *Market Street, Philadelphia,*

Corn-Shellers in great variety, price from $1 50 to $30 each; Hovey's Patent Hay, Straw, and Corn-stalk Cutters; Grant's Patent Fan Mills, for chaffing and screening wheat at one operation, warranted to take out cockle, cheat and smut. Also good Fans, for $14 to $18 each.

Whitman's Horse-powers and Threshing Machines, with Straw Carriers and Fan Mills attached; Spain's Improved Barrel Churns, the dashers of which may be taken out to clean. Cheese-presses, &c.; Centre-Draught, Self-sharpening, Right & Left-hand Ploughs, warranted to give satisfaction in their operation.

September 15th—tf.

The quantity of rain which fell in the 9th month, 1846, was one quarter of an inch. ..... .25 in.

Penn. Hospital, 10th mo. 1st.

Last month is said to have been more remarkable for heat and drought, than any corresponding month since 1804.

COATES' SEED STORE,

No. 49 *Market Street,*

FRESH TIMOTHY SEED,

Of various qualities, from good common seed to the purest and finest that can be produced,

TOGETHER WITH A COMPLETE ASSORTMENT OF

GRASS & GARDEN SEEDS,

Of the finest Quality and best Varieties,—Bird Seeds, &c.

JOS. P. H. COATES.
Successor to George M. Coates.

Sept. 15th, 1846.

PHILADELPHIA

AGRICULTURAL WAREHOUSE,

No. 291 *Market Street, North side, between Seventh and Eighth Streets, Philadelphia.*

The subscriber has just received from Worcester, Massachusetts, an assortment of Ruggles, Nourse and Mason's improved Eagle, Subsoil and other Ploughs, which have been so much approved by the principal Agricultural Societies in New England the several last years; also Bennett's Cultivators and Stevens' Self-Feeding Hay and Straw Cutter, a late and very valuable improvement in that kind of implement; Grain Cradles, &c.; an assortment of Ruggles, Nourse and Mason's Self-Sharpening Ploughs of the form and model of those above named, are daily expected. T. F. has and will constantly keep a large assortment of Farming Implements, as Fan Mills, Straw and Hay Cutters, Corn Shellers, Grain Cradles, Scythes, &c., together with Garden Tools of all kinds.

THOMAS FURBER.

May 15th, 1846. 1 yr.

NEW

Horticultural and Agricultural Ware-house,

84 *Chesnut Street below Third, South side.*

The subscriber has for the better accommodation of his customers, opened the above ware-house, with a large stock of Garden and Field Seeds, crop of 1845. Implements and Books on Gardening and Farming; he calls the particular attention of farmers to his pure stock of Sweede Turnips, Field Carrots, Beets and Parsnips, Pruning Shears, Saws and Knives.

March 14th, 1846.—1y. R. BUIST.

COAL.

The subscriber has made an arrangement for a constant supply of superior Lehigh and Schuylkill Coal—carefully prepared for family use, which he will furnish *at the usual cash prices*, on application at the office of the Farmers' Cabinet, where samples of the different kinds and sizes may be seen.

JOSIAH TATUM.

Philadelphia, Tenth month 15th, 1846.

We keep on hand at this office, and will supply our friends with Agricultural works generally. Among which are

THE FARMER'S ENCYCLOPEDIA, full-bound in leather;—Price	$3 50
YOUATT ON THE HORSE, with J. S. Skinner's very valuable Additions;	2 00
BRIDGEMAN'S GARDENER'S ASSISTANT;	2 00
THE AMERICAN POULTRY BOOK;	37½
THE FARMER'S LAND MEASURER;	37½
DANA'S MUCK MANUAL;	50
Complete sets of the FARMERS' CABINET, half-bound, 10 vols.	8 50
DOWNING'S Landscape Gardening,	3 50
Downing's Fruits and Fruit Trees of America,	1 50
SKINNER'S Every Man his own Farrier,	50
AMERICAN Poulterer's Companion,	1 25
BOUSSINGAULT'S RURAL ECONOMY,	1 50
FARMERS' & EMIGRANTS' HAND-BOOK,	1 00
MORRELL'S AMERICAN SHEPHERD,	1 00
STABLE ECONOMY,	1 00
BEVAN on the HONEY BEE,	31¼
BUISTS' ROSE MANUAL,	75
THOMAS' FRUIT CULTURIST,	50
SKINNER'S CATTLE & SHEEP DOCTOR,	50
AMERICAN FARRIER,	50
THE FARMER'S MINE,	75
HOARE ON THE VINE,	62½
HANNAM'S Economy of Waste Manures,	25
LIEBIG'S AGRICULTURAL CHEMISTRY,	25
" ANIMAL CHEMISTRY,	25
" FAMILIAR LETTERS,	12½

As well as his larger works on Chemistry and Agriculture.

Subscriptions received for Colman's Agricultural Tour—or single numbers sold.

☞ We are prepared to bind books to order.

GUANO.

Twenty-five tons first quality Ichaboe Guano, in bags or barrels, for sale in lots to suit purchasers, by

S. & J. J. ALLEN & CO.,
No. 7 South Wharves, 2nd Oil Store below Market street, Philadelphia.

October 15th, 1845. tf.

Poudrette.

A valuable manure—of the best quality, prepared in Philadelphia, for sale at the office of the Farmers' Cabinet, No. 50, North Fourth Street, or at the manufactory, near the Penitentiary on Coates street. Present price, for seven barrels or more, $1 75 per barrel, containing four bushels each. Any number of barrels less than seven, $2 each, or thirty-five cents a bushel. Orders from a distance, enclosing the cash, with cost of porterage, will be promptly attended to, by carefully delivering the barrels on board of such conveyance as may be designated. The results on corn and wheat have been generally very satisfactory. Farmers to the south and in the interior, both of this State and of New Jersey, are invited to try it. We are now able to supply the demand for wheat.

JOSIAH TATUM.

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All subscriptions must commence at the *beginning* of a volume. Having lately struck off a new edition of one or two of the former numbers, which had become exhausted, we are now able to supply, to a limited extent, any of the back volumes. They may be had at one dollar each, in numbers, or one dollar twenty-five cents half-bound and lettered.

For seven dollars paid in advance, a *complete set* of the work will be furnished in numbers, including the 11th volume. The whole can thus readily be forwarded by mail. For twenty-five cents additional, per volume, the work may be obtained neatly *half-bound and lettered.* Copies returned to the office of publication, will also be bound upon the same terms.

By the decision of the Post Master General, the "Cabinet," is subject only to newspaper postage. To any Post office within thirty miles of Philadelphia, they will go free of charge.

Joseph Rakestraw, Printer.